# Final Report One: Comparison of the Washington State Child Support Schedule to Current Measurements of Child-Rearing Costs

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#### Submitted to:

State of Washington Department of Social and Health Services Division of Child Support P.O. Box 11520 Tacoma, Washington 98411-5520

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# **Table of Contents**

# **Executive Summary**

Chapter	-	Intro	odu	ction

Purpose of the Study	1
Historical Overview of the Guidelines	2
Federal Requirements of State Guidelines	2
Income Shares Model	
State Application of Guidelines Models	3
Estimates of Child-Rearing Costs Underlying Schedules	4
New Measurements of Child-Rearing Costs	5
Comparisons to the Washington Schedule	6
Report Organization	6
Chapter II – Measurements of Child-Rearing Costs	
Data Source	7
Comparison of Data over Time	8
Households Selected for the Analysis	8
Expenditures and Income Data	9
Measurement Methodologies	9
Per Capita Methodology	10
Marginal Cost Methodology	10
Estimates of Child-Rearing Costs	11
Differences Over Time	12
Estimates of Child-Rearing Costs by Income Range	12
Child-Rearing Costs by Child's Age	13
Chapter III - Comparison of Washington Schedule to New Mo	easurements of Child-
Rearing Costs	
Summary of Findings	15
Detailed Comparisons	16



## Appendix I - Converting Estimates of Child-Rearing Costs To Updated Schedules

Appendix II - Updated Betson-Rothbarth Schedule

Appendix III - Updated Betson-Engel Schedule

**Appendix IV - Graphical Comparisons** 

#### **List of Exhibits**

Exhibit 1:	Application of Child Support Guidelines Models	4
Exhibit 2:	Family Consumption Expenditures and Income	10
	Comparison of Measurements of Child-Rearing Expenditures	
Exhibit 4:	Comparison of 2001 Measurements of Child-Rearing Costs Developed by Dr. Betson Using	
	Rothbarth and Engel Methodologies	14
Exhibit 5:	Summary of Findings: Comparison of Existing Washington Schedule to Current Measurements of	-
	Child-Rearing Costs	16
Exhibit 6:	Comparison of Washington Schedule to Current Measurements of Child-Rearing Costs	18
Exhibit 7:	Comparison of Washington Schedule to Poverty Guidelines	20

Policy Studies Inc.

Table of Contents - ii

# **Executive Summary**

This report finds that the amounts in the Washington Child Support Schedule are generally lower than the current costs of child rearing, hence do not provide an adequate level of support for children. The Schedule forms the core of the formula used to set child support award amounts. It is to be presumptively applied in all child support cases in Washington regardless of whether the parents are unmarried, separated, or divorced. With about 200,000 single-parent families in Washington (2000 Census), the child support guidelines are an important instrument in reducing child poverty, improving the self sufficiency of single parent households, and generally providing for the economic well-being of children in the State. In addition, fair and equitable guidelines help promote voluntary settlement of legal actions involving child support, thereby reducing the demands on court time and mitigating the adversarial impact of such proceedings.

#### PURPOSE OF THE STUDY

This study was predicated on recent research that found a disturbing high proportion of children in the Washington IV-D caseload living in poverty even after child support. The study also found a large drop in the standard of living among all custodial-parent families (IV-D and non-IV-D) even after the receipt of child support. This is of grave concern because two of the predominant legislative goals of child support guidelines, according to RCWA 26.19.001, are to:

- reduce poverty among children living in disrupted families; and
- ensure that children of disrupted families are provided for at the same standard of living that can be afforded by their parent(s).

The study found poverty rates in the range of 40 to 75 percent that varied according to the parents' marital status and which parent had custody. The study also found that the economic status of all custodial-parent families and noncustodial parents (IV-D and non-IV-D) would be better if the family was intact and economic resources were shared, but the splitting of resources to two families is more harmful to custodial-parent families than noncustodial parents. Custodial parents experience about a 42-44 percent drop, on average, in their standard of living. In contrast, noncustodial parents experience an 11-18 percent drop, on average, in their standard of living.

This study investigates whether the existing Washington Schedule is adequate. Specifically, this study investigates whether the amounts in the Washington Schedule reflect the current costs of child rearing. A subsequent report addresses other provisions of the Washington child support guidelines that may contribute to order amounts being set below child-rearing costs and other guidelines issues of concern; namely, the relatively high guidelines deviation rate.<sup>2</sup>

Policy Studies Inc. Executive Summary - i

<sup>&</sup>lt;sup>1</sup>Kate Stirling, The Impact of Child Support: Balancing the Economics Needs of Children and their Noncustodial Parents, University of Puget Sound (September 2002).

<sup>&</sup>lt;sup>2</sup>The guidelines deviation rate in Washington State is estimated to be 28 percent. [Kate Stirling, A Review of the Washington State Child Support Schedule, Report to the Washington State Division of Child Support (March 2003)].



#### **BASIS OF EXISTING WASHINGTON SCHEDULE**

Washington was one of a few states that had child support guidelines before federal laws required advisory statewide child support guidelines by 1987 and presumptive statewide child support guidelines by 1989.<sup>3</sup> In fact, the 1985 Washington Guidelines inspired the prototype Income Shares Guidelines Model developed and recommended to states through the 1984-87 National Child Support Guidelines Project. Convened by the federal Office of Child Support Enforcement (OCSE) at the request of Congress, the Panel overseeing the National Guidelines Project was charged with developing recommendations for states in order to assist them with meeting the 1987 and 1989 requirements for statewide guidelines.

At this time, the Washington Schedule stood out from the other guidelines because of its unique format, which is similar to the format of the existing Washington Schedule in that it is a look-up table of basic child support obligations that considers the parents' *combined* net income and the number of children. In contrast, most other child support guidelines at this time considered only the income of the noncustodial parent. The National Guidelines Project used the format of the Washington Schedule to develop the prototype Income Shares Schedule but replaced Washington's basic obligation amounts with the most current measurements of child-rearing costs.

#### **Income Shares Guidelines Model**

The Income Shares Guidelines Model presumes that the child is entitled to the same amount of expenditures that the child would have received had the parents lived together. The Income Shares Guidelines Model presumes that both parents have a financial responsibility to their child. Each parent's share of the financial responsibility is determined through prorating. Most state guidelines (33 states including Washington) rely on the Income Shares Model concept, although a state may have not adapted the prototype Income Shares model developed through the Guidelines Project.

#### **Washington State Schedule**

The Washington State Association of Superior Court Judges first approved the Washington Child Support Guidelines in 1982. Since the early Schedule predated many of the major studies of child-rearing costs, it was not in line with the economic evidence of child-rearing costs available when the prototype Income Shares schedule was developed. Subsequently, a 1987 Washington State Child Support Schedule Commission reviewed and revised the Schedule; which was adopted by the legislature in 1988. It is not clear whether there were any changes from 1988 to 1991, but the Schedule effective in 1991 is the same Schedule in effect today. In other words, there have been no changes to the Schedule since 1991.

The Washington Schedule appears to be partially based on a prototype Income Shares schedule developed by the 1984-87 National Guidelines Project.<sup>4</sup> When the Washington Schedule is converted to a percentage of net combined income, the percentages are identical to those of the prototype Schedule; however, the income ranges do not match. It appears that Washington shifted the prototype percentages downward for the lower half of its schedule and upward for the upper half of its schedule.

Executive Summary - ii Policy Studies Inc.

<sup>&</sup>lt;sup>3</sup>Pub. L. No. 93-378, 98 Stat. 1305 (1984) and Pub. L. No. 100-485, 102 Stat. 2343 (1988), respectively. <sup>4</sup>National Center for State Courts, *Development of Guidelines for Child Support Orders, Part I, Final Report*, Report to U.S. Office of Child Support Enforcement, Williamsburg, Virginia (March 1987), Table 16, page II-78.



The economic impact of these shifts is meaningless today because the prototype Schedule is considerably out of date. It was based on 1987 price and income levels and measurements of child-rearing costs developed from family expenditures data collected in 1972-73. Further, it is not clear how the prototype percentages were extrapolated to higher incomes to arrive at the Washington Schedule. The highest net income considered in the prototype Schedule was \$4,323 per month in 1987 dollars, whereas, the Washington Schedule includes combined net incomes up to \$7,000 per month. Although net incomes of \$4,323 and \$7,000 may have been considered high incomes over a decade ago, they are currently more in line with middle incomes to lower upper-class incomes.

#### **CURRENT COSTS OF CHILD REARING**

We review the Washington Child Support Schedule based on recommendations provided in a US Department of Health and Human Services (DHHS) report. In order to assist states with their quadrennial child support guidelines reviews as well as in response to a Congressional mandate, DHHS commissioned two reports in 1990 to measure child-rearing costs and compare them to child support guidelines. The first report developed measurements of child-rearing costs using five different economic methodologies.<sup>5</sup> The methodologies vary in how they separate the child's share from the adult's share of joint consumption items (e.g., home electricity, a loaf of bread). The second report reviewed the measurements of child-rearing costs and made recommendations to states as to how to use them.<sup>6</sup>

The recommendation of the second report is that:

States should periodically review their guidelines in conjunction with the most recent estimates of expenditures on children to be sure that their guidelines generate support orders that are consistent with estimates of expenditures on children. In particular, states should review the basic rates used in their guidelines to see if the child support awards they generate fall below the minimum estimate of expenditures on children.<sup>7</sup>

#### **Lower Bound of Estimates of Child-Rearing Costs**

The second report identifies the minimum estimate to be those developed from the "Rothbarth estimator," which is named after Erwin Rothbarth, the economist who developed the estimation methodology to analyze changes in family consumption during times of war. The Rothbarth estimator was one of the five methodologies used in the first report to DHHS that was prepared by Dr. David Betson, Professor of Economics, University of Notre Dame. Subsequently, Dr. Betson updated his Rothbarth measurements in

Policy Studies Inc. Executive Summary - iii

<sup>&</sup>lt;sup>5</sup>David M. Betson, *Alternative Estimates of the Cost of Children from the 1980-86 Consumer Expenditure Survey*, Report to U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, University of Wisconsin Institute for Research on Poverty, Madison, Wisconsin (1990).

<sup>&</sup>lt;sup>6</sup>Lewin/ICF, Estimates of Expenditures on Children and Child Support Guidelines, Report to the Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, Washington, DC (October 1990).

<sup>&</sup>lt;sup>7</sup>Lewin/ICF (1990), page 7-13.



2001 to include more current data on family expenditures.<sup>8</sup> We compare the results from Dr. Betson's most recent study to the Washington Schedule.

Economists believe that measurements of child-rearing costs developed from the Rothbarth estimator understate actual child-rearing costs. Lewin/ICF takes it a step further and suggests that the Rothbarth estimator represents the lower bound of all measurements of child-rearing costs. Regardless whether the Rothbarth is the definitive lower bound, it can be used as a benchmark because it is known to be less than the actual costs of child rearing. If the state's child support schedule yields amounts below the Rothbarth estimator, the schedule does not adequately reflect actual child-rearing costs.

#### **Upper Bound of Estimates of Child-Rearing Costs**

The Washington Schedule is also compared to the Engel estimator, which is named after Ernst Engel, who developed another economic methodology to measure child-rearing costs over a century ago. Economists generally believe that the Engel estimator overstates actual child-rearing costs. Lewin/ICF consider it the upper bound of the measurements of child-rearing costs. In other words, it is the converse of the Rothbarth estimator. Lewin/ICF used it in their 1990 report to determine if any state guidelines exceeded the actual costs of child-rearing costs.

The Engel estimator was one of the five methodologies used by Dr. Betson in his 1990 study. As is the situation with his Rothbarth estimates, he also updated his Engel estimates in his 2001 study using more recent data on family expenditures. The comparisons consider the more recent measurements.

#### Adjustments by Age of the Child

The Washington Schedule shows that older children (12-18 years old) cost about 23.6 percent more than younger children (0-11 years old). If we applied the same methodology that was used to adjust for age of children for the Washington Schedule, there would be no adjustment for the Rothbarth estimator and a 26 percent adjustment for the Engel estimator. There is no adjustment for the Rothbarth estimator because Dr. Betson found no significant differences in child-rearing costs by age of the child using the Rothbarth estimator. Although he did find a difference using the Engel estimator, the difference is only statistically significant for younger children (0-5 years old). Younger children cost 29 percent less than middle-age children. The difference between middle-age children (6-11 years old) and older children (12-17 years old) based on the Engel estimator was eight percent, but not statistically significant.

#### COMPARISONS

The comparisons are based on Dr. Betson's 2001 estimates of child-rearing costs using the Rothbarth and Engel estimators, which are considered the lower and upper bounds of child-rearing costs. These estimates were updated to 2004 price levels. In order to be consistent with the current Washington Schedule, they do not consider child care costs, but do include ordinary health care expenses.

Executive Summary - iv Policy Studies Inc.

<sup>&</sup>lt;sup>8</sup>David M. Betson, "Chapter 5: Parental Expenditures on Children," in Judicial Council of California, Review of Statewide Uniform Child Support Guidelines, San Francisco, California, (2001).



Following the recommendation of the DHHS report, discussed above, we identify areas of the Washington Schedule that are less than the Rothbarth estimator; that is, the lower bound of estimates of child-rearing costs. We do not include adjustments for age of the child because Dr. Betson did not find a consistently significant increase by age of the child. If we were to include age of the child, it would not affect what areas of the Washington Schedule that are identified as being below actual child-rearing costs. It could, however, affect what areas of the Washington Schedule that are identified as being above actual child-rearing costs.

We also identify areas of the Schedule that are below poverty levels. The current (2004) poverty guidelines level for each additional person in a household is \$265 per month.<sup>9</sup> For one person, the poverty guidelines level is \$776, so the total poverty guidelines level for a family of two is \$1,041 per month (\$776 + \$265). Yet, when examining what parts of the Schedule are below poverty, we use the \$265 per child amount. The poverty level is sometimes greater than the new measurements of child-rearing costs, specifically among very low-income families.

Our findings are summarized in the table below. The table also shows the frequency of orders by number of children according to findings from a recent case file review.<sup>10</sup>

	Exhibit ES-1 Summary of Findings: Comparison of Existing Washington Schedule to Current Measurements of Child-Rearing Costs Percent of Basic Obligations below Percent of Basic Obligations													
		Child-Rearing Costs Poverty												
Number of Children	Percent of Cases with X Number of Children	Schedule A Amounts (ages 0-11)	Schedule B Amounts (ages 12-18)	ALL	Schedule A Amounts (ages 0-11)	Schedule B Amounts (ages 12-18)	ALL							
1 Child	66.7%	100%	42%	71.1%	9%	5%	7.0%							
2 Children	25.3%	100%	6%	53.1%	14%	9%	11.7%							
3 Children		39%	0%	19.5%	20%	14%	17.2%							
4 Children	8%	33%	0%	16.4%	25%	19%	21.9%							
5 Children	36% 0% 18.0% 34% 23% 28.9%													
ALL	100%	61.6%	9.7%	35.6%	20.6%	14.1%	17.3%							

Some of the findings from Exhibit ES-1 are highlighted below.

- One Child. The majority (66.7%) of child support orders are for one child. All (100%) of the basic obligations under the existing Washington Schedule for one child ages 0-11 years are below the current measurements of child-rearing costs. Almost half (42%) of the basic obligations under the existing Washington Schedule for one child ages 12-18 years are below the current measurements of child-rearing costs.
- Two Children. About a quarter (25.3%) of child support orders are for two children. All (100%) of the basic obligations under the existing Washington Schedule for two children ages 0-11 years are below the current measurements of child-rearing costs. Only a small percent of the basic obligations under

Policy Studies Inc.

Executive Summary - v

<sup>&</sup>lt;sup>9</sup>Federal Register, 2004 Vol. 69, No. 30 February 13, 2004, pp. 7336-7338.

<sup>&</sup>lt;sup>10</sup>Stirling (2003).



- the existing Washington Schedule for two children ages 12-18 years are below the current measurements of child-rearing costs.
- Three or More Children. A small percentage (8%) of child support orders are for three or more children. About a third (33 to 39%) of the basic obligations under the existing Washington Schedule for three or more children ages 0-11 years are below the current measurements of child-rearing costs. None of the basic obligations under the existing Washington Schedule for three or more children ages 12-18 years are below the current measurements of child-rearing costs.

In all, as shown in Exhibit ES-1, over a third (35.6%) of the existing Washington Schedule is below the measurements of child-rearing costs and 17 percent of it is below poverty guidelines. The percentages are much higher for younger children. Almost two thirds (61.6%) of the existing Washington Schedule for children ages 0-11 years old is below the measurements of child-rearing costs and 21 percent of it is below poverty guidelines.

The remainder of this summary provides the detailed side-by-side comparisons of the current measurements of child-rearing costs (Exhibit ES-2) and poverty guidelines (Exhibit ES-3) to the Schedule.

Executive Summary - vi Policy Studies Inc.



#### **Exhibit ES-2** Comparison of Washington Schedule to Current Measurements of Child-Rearing Costs Gray Areas Indicate Where Schedule Is below Child-Rearing Costs One Child Two Children **Three Children** Four Children Five Children Washington New Measurements Combined В В В Upper Bound В Upper Bound Lower Upper Lower Α Lower Α Lower Lower Age 12-18 Bound Age 0-11 Age 12-18 Bound Age 12-18 Age 0-11 Age 12-18 Bound Monthly Bound Age Bound Bound Bound Age 0-11 Bound Age 12-18 Age 0-11 (Rothbarth) 0-11 (Rothbarth) Income (Rothbarth) (Rothbarth) (Engel) (Rothbarth) (Engel) (Engel) (Engel) (Engel)

Policy Studies Inc. Executive Summary - vii



#### **Exhibit ES-2** Comparison of Washington Schedule to Current Measurements of Child-Rearing Costs Gray Areas Indicate Where Schedule Is below Child-Rearing Costs One Child Two Children **Three Children Four Children Five Children** Washington New Measurements Combined Lower В Lower Α Lower Upper Α Lower Α Lower Upper Monthly Age 12-18 Bound Age 12-18 Bound Bound Age 0-11 Age 12-18 Bound Bound Age 12-18 Bound Bound Age 0-11 Age 12-18 Bound Bound Age 0-11 Bound Age 0-11 Age 0-11 (Rothbarth) (Rothbarth) (Rothbarth) (Rothbarth) (Engel) Income (Rothbarth (Engel) (Engel) (Engel) (Engel)

Executive Summary - viii Policy Studies Inc.



	Exhibit ES-3 Comparison of Washington Schedule to Poverty Guidelines															
						Areas Indica					<u> </u>					
		One Child			Two Childr			hree Child			our Childre	en	Five Children			
Combined Monthly	Α	В	Poverty	Α	В	Poverty	Α	В	Poverty			Poverty	АВ		Poverty	
income	Age 0-11	Age 12-18	(One Child)	Age 0-11	Age 12-18	(Two Children)	Age 0-11	Age 12-18	(Three Children)	Age 0-11	Age 12-18	(Four Children)	Age 0-11	Age 12-18	(Five Children)	
	J	12 10	Orma)	V	12 10	Grillaron)	J 7 1 1	12 10	Offinariori)	J 11	12 10	Ormaron)		12 10	Grillareri)	
600	133	164	265	206	254	530	258	318	795	292	360	1060	315	390	1325	
700	155	191	265	240	296	530	300	372	795	340	420	1060	370	455	1325	
800	177	218	265	274	340	530	345	426	795	388	480	1060	420	520	1325	
900	199	246	265	308	382	530	387	477	795	436	540	1060	475	590	1325	
1000	220	272	265	342	422	530	429	531	795	484	596	1060	525	650	1325	
1100	242	299	265	376	464	530	471	582	795	532	656	1060	580	715	1325	
1200	264	326	265	410	506	530	513	633	795	576	716	1060	630	780	1325	
1300	285	352	265	442	548	530	555	684	795	624	772	1060	680	840	1325	
1400	307	379	265	476	588	530	597	738	795	672	832	1060	735	905	1325	
1500	327	404	265	508	626	530	636	786	795	716	884	1060	780	965	1325	
1600	347	428	265	538	666	530	675	834	795	760	940	1060	830	1025	1325	
1700	367	453	265	570	704	530	714	882	795	804	992	1060	875	1085	1325	
1800	387	478	265	600	742	530	753	930	795	848	1048	1060	925	1140	1325	
1900	407	503	265	632	780	530	792	978	795	892	1100	1060	970	1200	1325	
2000	427	527	265	662	818	530	831	1026	795	936	1156	1060	1020	1260	1325	
2100	447	552	265	694	858	530	867	1074	795	980	1212	1060	1065	1320	1325	
2200	467	577	265	724	896	530	906	1122	795	1024	1264	1060	1115	1380	1325	
2300	487	601	265	756	934	530	945	1170	795	1068	1320	1060	1165	1440	1325	
2400	506	626	265	786	972	530	984	1218	795	1112	1372	1060	1210	1495	1325	
2500	526	650	265	816	1010	530	1023	1263	795	1152	1424	1060	1255	1555	1325	
2600	534	661	265	832	1026	530	1038	1284	795	1172	1448	1060	1280	1580	1325	
2700	542	670	265	842	1040	530	1053	1305	795	1192	1472	1060	1295	1605	1325	
2800	549	679	265	854	1054	530	1068	1320	795	1204	1488	1060	1310	1620	1325	
2900	556	686	265	862	1066	530	1080	1335	795	1220	1504	1060	1330	1640	1325	
3000	561	693	265	872	1076	530	1092	1347	795	1232	1520	1060	1340	1655	1325	
3100	566	699	265	878	1086	530	1101	1359	795	1240	1532	1060	1350	1670	1325	
3200	569	704	265	884	1092	530	1107	1371	795	1248	1544	1060	1360	1680	1325	
3300	573	708	265	890	1098	530	1113	1377	795	1256	1552	1060	1365	1695	1325	
3400	574	710	265	892	1102	530	1116	1380	795	1260	1556	1060	1370	1700	1325	
3500	575	711	265	894	1104	530	1119	1383	795	1264	1560	1060	1375	1705	1325	
3600	577	712	265	896	1106	530	1122	1386	795	1268	1564	1060	1380	1710	1325	
3700	578	713	265	898	1108	530	1125	1389	795	1272	1568	1060	1385	1715	1325	
3800	581	719	265	904	1116	530	1131	1398	795	1276	1576	1060	1390	1720	1325	

Policy Studies Inc. Executive Summary - ix



	Exhibit ES-3 Comparison of Washington Schedule to Poverty Guidelines Gray Areas Indicate Where Schedule Is below Poverty														
		One Child			Two Childr	en	T	hree Child	ren	Four Children			Five Children		
Combined Monthly income	A Age 0-11	B Age 12-18	Poverty (One Child)	A Age 0-11	B Age 12-18	Poverty (Two Children)	A Age 0-11	B Age 12-18	Poverty (Three Children)	A Age 0-11	B Age 12-18	Poverty (Four Children)	A Age 0-11	B Age 12-18	Poverty (Five Children)
2000	500	700	005	000	4444	500	4450	4 404	705	4004	4040	4000	4.400	4700	4005
3900	596 609	736 753	265	926 946	1144	530 530	1158 1185	1431	795 795	1304	1616 1652	1060	1420	1760	1325
4000		753	265 265	946	1168	530	1185	1464 1500	795 795	1336	1652	1060	1455	1800	1325 1325
4100	623				1196					1364		1060	1490	1840	
4200	638	788	265	990	1222	530	1239	1533	795	1400	1724	1060	1525	1885	1325
4300	651	805	265	1012 1032	1250	530	1266	1566	795	1428	1764	1060 1060	1555	1925	1325
4400	664	821	265		1274	530	1293	1596	795	1456	1796		1585	1960	1325
4500 4600	677 689	836 851	265 265	1050 1070	1298	530 530	1314 1338	1626 1656	795 795	1484 1508	1832 1868	1060 1060	1615 1645	2000 2035	1325 1325
	701		265	1070	1322		1338	1686	795 795	1508	1900	1060			
4700	-	866			1346	530							1675	2070	1325
4800	713	882	265	1108	1370	530	1389	1716	795	1564	1932	1060	1705	2110	1325
4900	726	897	265	1128	1394	530	1410	1743	795	1592	1964	1060	1735	2145	1325
5000	738	912	265	1148	1416	530	1437	1776	795	1616	2000	1060	1765	2185	1325
5100	751	928	265	1168	1440	530	1461	1806	795	1644	2036	1060	1795	2215	1325
5200	763	943	265	1186	1464	530	1482	1833	795	1672	2068	1060	1825	2255	1325
5300	776	959	265	1204	1488	530	1509	1863	795	1700	2100	1060	1855	2290	1325
5400	788	974	265	1224	1512	530	1533	1896	795	1728	2132	1060	1885	2330	1325
5500	800	989	265	1244	1536	530	1554	1923	795	1756	2168	1060	1915	2365	1325
5600	812	1004	265	1264	1558	530	1581	1953	795	1784	2204	1060	1945	2400	1325
5700	825	1019	265	1282	1582	530	1605	1983	795	1808	2236	1060	1975	2440	1325
5800	837	1035	265	1300	1606	530	1629	2013	795	1836	2268	1060	2005	2475	1325
5900	850	1050	265	1320	1630	530	1653	2043	795	1864	2300	1060	2035	2510	1325
6000	862	1065	265	1340	1654	530	1677	2073	795	1892	2336	1060	2065	2545	1325
6100	875	1081	265	1360	1678	530	1701	2103	795	1916	2372	1060	2090	2585	1325
6200	887	1096	265	1378	1702	530	1725	2130	795	1944	2404	1060	2120	2620	1325
6300	899	1112	265	1398	1726	530	1749	2163	795	1972	2436	1060	2150	2660	1325
6400	911	1127	265	1418	1750	530	1773	2193	795	2000	2468	1060	2180	2695	1325
6500	924	1142	265	1436	1774	530	1797	2220	795	2024	2504	1060	2210	2730	1325
6600	936	1157	265	1456	1798	530	1821	2250	795	2052	2540	1060	2240	2770	1325
6700	949	1172	265	1474	1822	530	1845	2283	795	2080	2572	1060	2270	2805	1325
6800	961	1188	265	1494	1846	530	1869	2310	795	2108	2604	1060	2300	2840	1325
6900	974	1203	265	1514	1870	530	1893	2340	795	2132	2636	1060	2330	2875	1325
7000	986	1218	265	1534	1892	530	1917	2370	795	2160	2672	1060	2360	2915	1325

Executive Summary - x

Policy Studies Inc.



### Chapter I

## Introduction

This report explores the adequacy of the Washington Child Support Schedule, which forms the core of the formula used to set child support award amounts. It is to be presumptively applied in all child support cases in Washington regardless of whether the parents are unmarried, separated, or divorced. With about 200,000 single-parent families in Washington (2000 Census), the child support guidelines are an important instrument in reducing child poverty, improving the self sufficiency of single parent households, and generally providing for the economic well-being of children in the State. In addition, fair and equitable guidelines help promote voluntary settlement of legal actions involving child support, thereby reducing the demands on court time and mitigating the adversarial impact of such proceedings.

The adequacy of the Schedule is being questioned due to recent research that found a disturbing high proportion of children in the Washington IV-D caseload living in poverty even after child support. <sup>1</sup> The study also found a large drop in the standard of living among all custodial-parent families (IV-D and non-IV-D) even after the receipt of child support. According to the recent research, 40 to 75 percent of children in the Washington IV-D caseload live in poverty even after child support. The study also finds that although the standard of living for both the noncustodial parent and the custodial-parent family are less than what the standard of living would be if the parents lived together, that the decrease in the standard of living for the custodial-parent family is over twice as much as the decrease in the standard of living for the noncustodial parent, even after consideration of child support. Custodial-parent families experience a 44 percent drop, on average, in their standard of living. In contrast, noncustodial parents experience an 18 percent drop, on average, in their standard of living.

These findings are disturbing because they suggest that the Washington Child Support Schedule may be inadequate, contrary to the legislature's intent. As stated in RCWA 26.19.001, the legislature established the schedule to:

- Insure that child support orders are adequate to meet a child's basic needs; and
- Provide additional child support commensurate with the parents' income, resources, and standard of living.

#### **PURPOSE OF THE STUDY**

One factor that may explain the high poverty rate and disproportionate drop in the standard of living among custodial-parent families is that the basic obligations in the current Schedule are inadequate. The basic obligations are at the core of the child support formula. This study examines whether the basic obligations are below current measurements of child-rearing costs. It is the first of two reports examining guidelines factors that may contribute to these undesirable outcomes and the relatively high rate of deviation from the

<sup>&</sup>lt;sup>1</sup>Kate Stirling, *The Impact of Child Support: Balancing the Economics Needs of Children and their Noncustodial Parents*, University of Puget Sound (September 2002).



Washington guidelines. Other reports will explore additional guidelines factors (e.g., the basic subsistence limitation, individual deviation criteria).

The adequacy of the existing Washington Schedule is determined by comparing it to the most current measurements of child-rearing costs. This is the approach recommended in a report published by the U.S. Department of Health and Human Services (DHHS).<sup>2</sup> Specifically, the report recommends comparing state child support guidelines to the "Rothbarth estimator," which is considered the lower bound of estimates of child-rearing costs. If order amounts using the state's guidelines are below the Rothbarth estimator of child-rearing costs, they are unambiguously below actual child-rearing costs. The Rothbarth estimator is one of the more common economic methodologies used to measure child-rearing costs. An economic methodology is needed to separate the child's share from the adults' share of common consumption items (e.g., electricity for the home, a loaf of bread).

#### HISTORICAL OVERVIEW OF THE GUIDELINES

Prior to federal requirements imposed in 1987 and 1989, Washington was one of a few states that had promulgated statewide child support guidelines. The Washington State Association of Superior Court Judges first approved the Washington Child Support Guidelines in 1982, which is well before the 1987 federal deadline for statewide advisory guidelines.

The Family Support Act of 1988 required that states adopt statewide presumptive guidelines by 1989. In order to meet this deadline, Washington State convened the 1987 State Child Support Schedule Commission. The 1988 legislature adapted the Commission's recommendations, which included several major changes. We could not determine if there were any changes to the Schedule from 1989 to 1990, but we do know that the Washington Schedule has not changed since 1991. We have a copy of the Schedule in effect in 1991 and it is identical to the Schedule currently in effect.

The Washington Schedule has been reviewed several times since 1991. The most recent review was conducted in 2001, but did not result in any changes to the Schedule.<sup>3</sup>

#### **Federal Requirements of State Guidelines**

Federal code [45 CFR 302.56] requires states to have presumptive guidelines that can be rebutted in cases where the guidelines result in inappropriate or unjust awards based on state-determined deviation criteria. Statewide guidelines are to be made available to all judicial and administrative officials whose duty is to set child support award amounts. States have discretion in the guidelines models that they use; yet, they must:

- Be based on specific descriptive and numeric criteria;
- Take into consideration all earnings and income of the noncustodial parent; and
- Provide for the child(ren)'s health care needs.

<sup>&</sup>lt;sup>2</sup>Lewin/ICF, Estimates of Expenditures on Children and Child Support Guidelines, Report to the Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, Washington, DC (October 1990).

<sup>&</sup>lt;sup>3</sup>MAPS Unit, Division of Child Support, Washington State DSHS, A Study of Washington State Child Support Orders: Exploring the Universe of Cases within the Context of the Child Support Schedule, report to the federal Office of Child Support Enforcement, First Report under Grant Number 90-FD-0035 (April 2001).



To help states develop child support guidelines, the 1984 House Ways and Means Committee directed the federal Office of Child Support Enforcement (OCSE) to convene the National Child Support Guidelines Panel. Comprising judicial and legislative officials, representatives of custodial and noncustodial parents, and legal and economic scholars, the Panel recommended that states adopt either the Income Shares model or the Melson formula for usage.<sup>4</sup> These models consider both parents' incomes in the calculation of support and allow for consideration of specific case factors, such as additional children for whom a parent has a legal duty to support, shared-parenting time, parents with limited ability to pay due to poverty income, the child's health care costs, and other factors.

#### **Income Shares Model**

The Washington Schedule effective in 1985 inspired the Income Shares Model, which was developed through the 1984-87 National Guidelines Project. The Income Shares model presumes that the child should receive the same amount of expenditures the child would have received if the parents lived together and combined their incomes. In other words, the child is held harmless by the parents' decision to divorce, separate, or otherwise not live together.

Only a few states had child support guidelines at the time that the Income Shares model was developed. The Washington Schedule stood out from others because of its unique format: it consisted of a look-up table that considered the *parents' combined* income and the number of children. The basic obligations in the look-up table were to be prorated between the parents. The noncustodial parent's share became the support award amount. In contrast, most guidelines at the time only considered the *noncustodial parent's* income. This was an important distinction because one of the major recommendations of the National Guidelines Panel was that the support award amount should be determined in consideration of the incomes of both parents, since both parents have a financial responsibility to their child.

Consequently, National Guidelines Project staff adapted the format of the Washington Schedule but substituted amounts that reflected the current costs of child rearing for the existing basic obligation amounts to develop a prototype Income Shares schedule.

#### **State Application of Guidelines Models**

As shown in Exhibit 1, Washington is one of 33 states that currently use the Income Shares model. The Income Shares model is the most commonly used guidelines model. Among the four states that switched child support guidelines models in the last ten years, all but one have switched from another guidelines model to the Income Shares model. In addition, another two states currently have proposals to switch to the Income Shares model.

The next most commonly used method is the percentage-of-obligor income model. It is used by 13 states. The amount of the custodial parent's income has no impact on the amount of the child support award under this model. Delaware, Hawaii and Montana rely on the Melson formula, which was developed by Judge

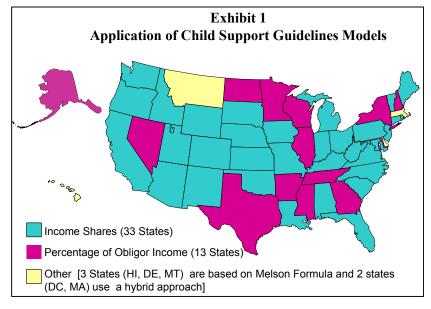
<sup>&</sup>lt;sup>4</sup>National Center for State Courts, *Development of Guidelines for Child Support Orders, Part I, Final Report*, Report to U.S. Office of Child Support Enforcement, Williamsburg, Virginia (March 1987).



Melson in Delaware. The Melson formula starts off similar to the Income Shares approach in that it prorates a basic level of support for the child. If the noncustodial parent has any income after payment of his or her

prorated share and an adjustment to meet his or her own subsistence needs, an additional percentage of the remaining income is assigned to child support. The District of Columbia and Massachusetts use a hybrid approach which starts off as a percentage-of-obligor income approach until the custodial parent's income less work-related child care costs reaches a statedetermined threshold (\$16,500 in the District for one child), then it switches to a pseudo-Income Shares approach in that increases in custodial parent income may

reduce the child support award amount.



# **ESTIMATES OF CHILD-REARING COSTS UNDERLYING SCHEDULES**

Consistent with the premise that the child is entitled to the same expenditures the child would have received if the parents lived together, most Income Shares states base their guidelines schedule on measurements of child-rearing expenditures in intact families. Initially, most states with guidelines reflective of child-rearing costs relied on measurements developed by Dr. Thomas Espenshade. The Espenshade estimates, which are published in *Investing in Children* (Urban Institute Press: Washington, D.C., 1984), were derived from national data on household expenditures from the 1972-73 Consumer Expenditure Survey conducted by the U.S. Bureau of Labor Statistics. They were the most current and most reliable economic estimates at the time. The National Guidelines Project also used them to develop prototype Income Shares schedules.

The initial source of the numbers underlying the 1982 Washington Schedule is unknown, but the Schedule underwent major revisions in 1988 and has not been changed since at least 1991. It appears to be partially based on a prototype Income Shares Schedule developed by the National Guidelines Project.<sup>5</sup> When the Washington Schedule is converted to percentages of net combined incomes, the percentages are identical to those of the prototype Schedule; however, the income ranges do not match. It appears that Washington shifted the prototype percentages downward for the lower half of its schedule and upward for the upper half of its schedule. The rationale for these shifts is unknown and puzzling since if the shift was made to account for changes in price levels or another economic factor, the shifts should be in the same direction. We could also not determine how the prototype percentages were extrapolated to higher incomes to arrive at the

<sup>&</sup>lt;sup>5</sup>National Center for State Courts (March 1987), Table 16, page II-78.



Washington Schedule. The highest net income considered in the prototype Schedule was \$4,323 per month in 1987 dollars; whereas, the Washington Schedule includes combined net incomes up to \$7,000 per month.

#### **NEW MEASUREMENTS OF CHILD-REARING COSTS**

Since the Washington child support schedule was developed, several new studies of child-rearing costs have been developed. The first update was conducted by Dr. David Betson of the University of Notre Dame, through the University of Wisconsin Institute for Research on Poverty, to fulfill a requirement of The Family Support Act of 1988 [P.L. 100-485, §128] mandating that the U.S. Department of Health and Human Services "...conduct a study of the patterns of expenditures on children in 2-parent families, in single-parent families following divorce or separation, and in single-parent families in which the parents were never married... ." For his original research, Dr. Betson used data from the national 1980-86 Consumer Expenditure Survey to develop new estimates using five different estimating models.

Expenditures made on behalf of children are commingled with spending on behalf of adults for the largest expenditure categories (i.e., food, housing, transportation). This commingling of household items is the most important reason that equitable child support awards are so difficult to set on a case-by-case basis. Since the child's share of household consumption cannot be directly observed, it must be estimated based on the best available economic evidence on child-rearing expenditures. This evidence provides estimates of expenditures on children as proportions of parental income levels across a broad spectrum of family incomes.

Dr. Betson updated his study in 2001 through funding from California and the University of Wisconsin at Madison, Institute for Research on Poverty.<sup>7</sup> Dr. Betson applied the same methodologies, assumptions and computer code. The only difference was that in 1990 he used family expenditures data collected in 1980-86 and in 2001 he used family expenditures data collected in 1996-99. Most states that have updated their schedules since 2002 use the measurements from Dr. Betson's new study.

Dr. Betson's new and old estimates of child-rearing expenditures, as well as other estimates, are discussed in greater detail in Chapter II. He applied several methodologies including the "Rothbarth estimator," which is believed to understate actual child-rearing costs; and, the "Engel estimator," which is believed to overstate actual child-rearing costs. The 1990 DHHS report evaluating state guidelines suggest that guidelines amounts between these two estimates are appropriate. The report also recommends that if the amounts from the state guidelines are below the Rothbarth estimator, they unambiguously below actual child-rearing costs. The specific recommendation follows.

States should periodically review their guidelines in conjunction with the most recent estimates of expenditures on children to be sure that their guidelines generate support orders that are consistent with estimates of expenditures on children. In particular, states should

<sup>&</sup>lt;sup>6</sup>David M. Betson, *Alternative Estimates of the Cost of Children from the 1980-86 Consumer Expenditure Survey*, Report to U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, University of Wisconsin Institute for Research on Poverty, Madison, Wisconsin (1990).

<sup>&</sup>lt;sup>7</sup> David M. Betson, "Chapter 5: Parental Expenditures on Children," in Judicial Council of California, Review of Statewide Uniform Child Support Guidelines, San Francisco, California, (2001).



review the basic rates used in their guidelines to see if the child support awards they generate fall below the minimum estimate of expenditures on children.<sup>8</sup>

#### **COMPARISONS TO THE WASHINGTON SCHEDULE**

In order to compare the most current measurements of child-rearing costs to the existing Washington Schedule, we develop two updated Washington Schedules:

- An updated Schedule based on the Rothbarth estimates of child-rearing costs, where the Rothbarth estimator is considered the lower bound of the estimates; and
- An updated Schedule based on the Engel estimates of child-rearing costs, where the Engel estimator is considered the upper bound of the estimates.

We use the Rothbarth and Engel estimates developed by Dr. Betson from 1996-99 data, update them to 2004 price levels and incomes, and we subtract child care costs since the current Washington Schedule does not include child care costs. We also leave in ordinary medical expenses but exclude the child's health insurance premium and extraordinary medical costs, as the existing Washington Schedule does.

#### REPORT ORGANIZATION

In Chapter II, we discuss estimates of child-rearing expenditures.

In Chapter III, we compare the current measurements of child-rearing costs to the existing Washington Schedule.

The first Appendix documents the technical steps taken to convert the current measurements of child-rearing costs into a Schedule comparable to Washington's Schedule. This is necessary to compare the measurements of child-rearing costs. The updated Schedules are provided in additional Appendices.

<sup>&</sup>lt;sup>8</sup>Lewin/ICF (1990), page 7-13.



## **Chapter II**

# **Measurements of Child-Rearing Costs**

The most common and authoritative studies on child-rearing costs used to develop and review child support guidelines are listed below.

- Thomas J. Espenshade, *Investing in Children: New Estimates of Parental Expenditures*, Urban Institute Press: Washington, D.C. (1984).
- David M. Betson, Alternative Estimates of the Cost of Children from the 1980-86 Consumer Expenditure Survey, Report to U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, University of Wisconsin Institute for Research on Poverty, Madison, Wisconsin (1990).
- Lewin/ICF, Estimates of Expenditures on Children and Child Support Guidelines, Report to U.S. Department
  of Health and Human Services (Office of the Assistant Secretary for Planning and Evaluation),
  Lewin/ICF, Fairfax, Virginia. (October 1990).
- David M. Betson, "Chapter 5: Parental Expenditures on Children," in Judicial Council of California, Review of Statewide Uniform Child Support Guidelines, San Francisco, California, (2001).
- Mark Lino, Expenditures on Children by Families: 2003 Annual Report, U.S. Department of Agriculture (USDA), Center for Nutrition and Policy Promotion. Miscellaneous Publication No. 1528-2003, Washington D.C. (2004).

Most states relied on Dr. Espenshade's measurements when they first developed child support guidelines in the 1980s because it was the most authoritative study available at the time. The Washington Guidelines are based on Dr. Espenshade's measurements. Beginning in the mid-1990s, states began to update their guidelines using Dr. Betson's 1990 study. Dr. Betson's first study was commissioned by the US Department of Health and Human Services (DHHS) for the explicit purpose of assisting states by providing information that could be used to develop or update child support guidelines. DHHS also commissioned the Lewin Group to independently review Dr. Betson's study and other studies of child-rearing costs. Dr. Betson's second study used the same methodologies as his first study, but applied it to more current expenditures data.

The majority of Income Shares states today base their tables on Dr. Betson's measurements of child-rearing costs. A few Income Shares states—mostly those that have never updated their tables—still base their tables on Dr. Espenshade's measurements of child-rearing costs. No state uses the USDA measurements.

#### **DATA SOURCE**

The data source for all of the studies listed above is the Consumer Expenditure Survey (CEX), which is conducted by the Bureau of Labor Statistics.<sup>9</sup> Spanning over 100 counties to obtain a geographically representative sample of the nation and four regions (Midwest, Northeast, South, and West), the CEX includes two surveys: a quarterly survey of about 7,600 households and a diary survey of about 7,800

Detailed information about the CEX can be found at the BLS website: http://www.bls.gov.



households. Households in the interview survey participate for five consecutive quarters with new households rotating in and out of the survey each quarter. Households in the diary survey participate for two weeks.

The CEX is the most comprehensive and detailed survey conducted on expenditures. The BLS applies rigorous procedures to ensure data quality and reliability. It also engages in a continuous improvement process aimed at increasing response rates and enhancing the overall quality and utility of the survey data. The BLS does not produce data at the state level, nor does any state attempt to replicate the CEX because it is beyond the scope, capacity, or resources of any state to do. Further, the utility of conducting a state-specific study is questionable since there is not overwhelming evidence that child-rearing expenses and other related economic factors in a particular state vary from the national average. For example, Washington income does not differ remarkably from the national average. Median family income is \$56,461 and \$52,273 per year, respectively in Washington and the U.S.<sup>10</sup>

The following CEX survey years form the basis of the respective studies:

- Dr. Espenshade used 1972-73 CEX interview and diary data;
- Dr. Betson's first study used 1980-86 CEX interview data;
- Dr. Betson's second study used 1996-99 CEX interview data; and
- Dr. Lino used 1990-92 CEX interview data.

The Lewin Report is not included because it did not provide original estimates of child-rearing costs. Instead, it reviewed other studies.

Although the data were collected in earlier years, most of the studies listed above updated the measurements of child-rearing costs to current price levels. For example, Dr. Lino uses 1990-92 CEX interview data but he updates his study annually for changes in price level. His most recent study considers 2003 price levels. In a similar vein, although the Washington Schedule is based on 1972-73 CEX data, which is what Dr. Espenshade used, the National Guidelines Project updated the measurements to 1987 price levels.

#### **Comparison of Data over Time**

The BLS made substantive changes to the survey in the early 1980s including changes in sampling. This limits the comparability of data collected between the two time periods. The BLS has also made several other changes over the years, but not in magnitude to those in the early 1980s. This limits any comparisons between those measurements based on the 1972-73 data and subsequent data years. It also limits the comparisons between those measurements based on the 1980-86 data and subsequent data years.

#### **Households Selected for the Analysis**

All of the measurements of child-rearing costs focus on expenditures in intact families. Dr. Lino's and Dr. Betson's first studies include measurements in single-parent families, but the information provides little utility to guidelines formation. Single-parent families generally face high incidences of poverty and lower incomes

<sup>&</sup>lt;sup>10</sup>2003 American Community Survey (US Census). The American Community Survey is a new Census survey aimed at providing information between the decennial censuses.



than intact families. Since a principle of most guidelines is that the child should share in the lifestyle a parent(s) can afford, most guidelines models find it inappropriate to set amounts at poverty levels and amounts expended by single-parent families on children.

Further, since the premise of the Income Shares model is that the child shall receive the same amount of expenditures had the parents lived together, child-rearing expenditures in intact families is an appropriate base for Income Shares tables.

#### **Number of Children**

Most of the studies are limited to measuring the costs of one, two and three children. There are an insufficient number of families with four or more children to develop valid measurements of child-rearing costs for four or more children.

#### **Expenditures and Income Data**

The CEX gathers detailed data on several hundred different items purchased by a household. When aggregating the CEX data, the BLS organizes the items into major categories (e.g., food, housing, clothing, transportation, health care). Since the CEX focuses on expenditures for current consumption, mortgage principal payments are excluded because they are considered a form of savings. Current consumption, however, does include other expenditures for housing such as mortgage interest payments, property taxes and rent. In measuring child-rearing costs, personal insurance, pensions and cash contributions are also excluded by Drs. Lino and Betson because they also are not part of current consumption or are expended on someone outside the immediate household. In addition, Dr. Betson excludes the net purchase price of vehicles since vehicles are typically kept for more than a year. If the data were available, he would only include the amount of the vehicle consumed in that year (e.g., depreciation of the vehicle).

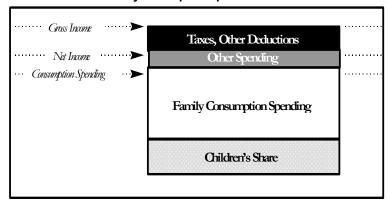
The CEX also gathers information about household income. Yet, the BLS is concerned that income may be under-reported. Although underreporting of income is a problem inherent to most surveys, the BLS is particularly concerned because expenditures exceed income among low-income households participating in the CEX. The BLS is unclear whether this results from underreporting of income or these households are actually spending more than their incomes because of an unemployment spell, being a student, or otherwise withdrawing from their savings. In an effort to improve income information, the BLS added and revised income questions in 2001. It is still too early to determine if these changes have resulted in any improvements or insight on whether income is actually being underreported.

#### **MEASUREMENT METHODOLOGIES**

Most goods purchased for a family are consumed by both adults and children residing in the household. For example, both adults and children consume electricity that was purchased for the household and both adults and children consume a loaf of bread that was purchased for the household. The children's share and adults' share of these goods are not readily distinguishable, so an economic methodology is necessary to separate the children's and adults' shares to measure child-rearing costs. Exhibit 2 provides an illustration of the issue.



Exhibit 2
Family Consumption Expenditures and Income



#### Per Capita Methodology

The simplest methodology is a per capita approach. This approach simply divides the amount of expenditures by the number of family members. For example, if a family spends \$1,000 per month and there are four family members, the per capita amount is \$250 per month. If there are two children and two adults in the family, the child's share of total family expenditures is 50 percent. This approach is used by the USDA for major expenditures categories (i.e., housing, transportation). A criticism of this approach is that it assumes that a child costs the same as an adult, whereas the common belief is that a child costs less than an adult. The Lewin Group independently evaluated measurements of child-rearing costs and concludes that the per capita approach overstates actual child-rearing costs.

#### **Marginal Cost Methodology**

Economists generally predict expenditure decisions based on the margin; that is, how much more is spent due to a change in one particular factor compared to what is currently being spent, all other things being held constant. In measuring child-rearing expenditures, the marginal cost methodology compares two households that are equally well off economically: a childless, married couple; and, a married couple with children. In other words, all other things are constant except the presence of children. The difference in expenditures between these households is assumed to be the amount spent on children.

The challenge when applying the marginal cost approach to child-rearing costs is identifying a standard of economic well-being; that is, the measurement used to determine that the childless couple and the couple with children are equally well off. The two most common approaches are the Engel and the Rothbarth methodologies. The Engel methodology relies on the percentage of household expenditures devoted to food and the Rothbarth methodology relies on the percentage of household expenditures devoted to adult goods.

Over 100 years ago, Ernst Engel's research found that as total household expenditures increased— and holding all else constant including family size— the percent of total expenditures devoted to food



decreased.<sup>11</sup> Engel also found that as family size increased— and holding all else constant including total expenditures— the percent of total expenditures devoted to food increased. Engel combined these empirical findings to develop a supposition, which is known as Engel's law in economics, that the percentage of total expenditures devoted to food could be used as a standard of economic well-being to measure child-rearing expenditures.

Another economist, Erwin Rothbarth, later argued that a more appropriate approach would be to measure how adults reduced their expenditures on "luxuries" (alcohol, tobacco, entertainment, and sweets) once all necessary expenditures for all family members including children were made.<sup>12</sup> Most economists applying the Rothbarth methodology define luxuries to be expenditures on adult goods such as adult clothing or a combination of adult clothing, tobacco and alcohol.<sup>13</sup>

Dr. Betson also applied two less commonly used marginal cost methodologies: The Iso-Prop and the Barten-Gorman methodologies. The Iso-Prop methodology defines the standard of economic well-being as the budget share spent on necessities (e.g., food, clothing, housing, utilities, health care). The Barten-Gorman methodology assumes that the standard of economic well-being is defined by all goods consumed by a family, however, consumption will vary according to the size and composition of the family.

#### **ESTIMATES OF CHILD-REARING COSTS**

Exhibit 3 compares the results from the different methodologies and studies for one, two, and three children. Measurements based on the Iso-Prop and Barten-Gorman methodologies are not included because they are less commonly used and did not yield robust results.<sup>14</sup>

The measurements are expressed as a percentage of total expenditures and represent the average for all income ranges. Exhibit 3 shows that the Rothbarth measurements of child-rearing costs are lower than those from the Engel and USDA methodologies. As discussed by the Lewin Group in an independent evaluation conducted for DHHS, the Engel methodology overstates actual child-rearing costs and the Rothbarth methodology understates actual child-rearing costs. The Lewin report also suggests that the USDA methodology overstates actual child-rearing costs. In his 1990 report, Dr. Betson concludes that the measurements based on the Rothbarth methodology are more plausible than those based on the Engel methodology because those based on the Engel methodology approach per capita amounts. (Recall that per

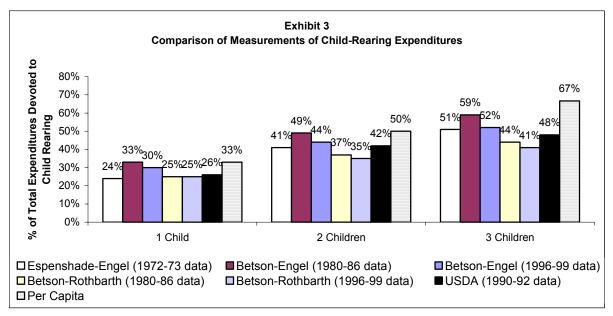
<sup>&</sup>lt;sup>11</sup>Ernst Engel, "Die Productions and Consumtionsverhaltnisse des Konigsreichs Sachsen, Zeitscrift des Statisticshen Bureaus des Koniglich Sachischen Ministeriums des Innern, 3 (1857).

<sup>&</sup>lt;sup>12</sup>Erwin Rothbarth, "Notes on a Method of Determining Equivalent Income for Families of Different Composition," Appendix 4 in Charles Madge (editor), *War-Time Pattern of Spending and Saving*, National Institute for Economic and Social Research, Cambridge, Cambridge University Press (1943).

<sup>&</sup>lt;sup>13</sup>For example, see Betson (1990 and 2001) and Edward P. Lazear and Robert T. Michael, *Allocation of Income within the Household*, The University of Chicago Press, Chicago (1988). Betson (1990) also uses alternative definitions of adult goods and found no difference between when the definition was limited to adult clothing and when it included tobacco and alcohol expenditures. The measurements reported in this study are based on the definition limited to adult clothing. <sup>14</sup>The Iso-Prop results varied according to model specification. In some specifications, they resulted in amounts as high as the Engel methodology; whereas, in other specifications, they resulted in much lower amounts. The Barten-Gorman model did not produce as good of a fit to the expenditures data as the Engel and Rothbarth methodologies.



capita amounts assume that children cost the same as adults, while the common perception is that a child costs less than an adult.)



In recommending which estimates are the most appropriate for states to use in child support guidelines, the Lewin Report recommends a range where the Rothbarth estimator is the lower bound and the Engel estimator is the upper bound. Dr. Betson, on the other hand, recommends the Rothbarth estimator. Dr. Betson arrived at this recommendation through deducing the other four methodologies he applied were unreasonable because of empirical issues with the modeling, lack of statistical significance, or implausible results.

#### **Differences Over Time**

The Lewin report could not discern whether differences in the Espenshade-Engel measurements and the Betson-Engel measurements resulted from actual changes in child-rearing costs over time, or from differences in specification and modeling between Drs. Espenshade and Betson. Further, substantive changes to the CEX from 1972-73 (the data years Espenshade used) and 1980-86 (the data years Betson used) may also contribute to the difference.

Neither did Dr. Betson find statistical differences between his estimates over time; that is, from his first set of estimates based on 1980-86 data; and, his second set of estimates based on 1996-99 data. The only exception was a statistically significant decrease in expenditures for three children over time using the Engel methodology. The difference for three children was not statistically significant using the Rothbarth methodology.

#### **Estimates of Child-Rearing Costs by Income Range**

The USDA study and Dr. Betson find evidence that the percentage of total expenditures devoted to child-rearing decreases as income increases, although the actual dollar amount devoted to child-rearing expenditures increases. This trend is evident in the existing Washington Schedule, which allocates a smaller



proportion of net income to child-rearing expenditures as net income increases. This trend is also illustrated in Exhibit 4. Expressing measurements of child-rearing costs as a percentage of net income, Exhibit 4 compares the percentages based on Dr. Betson's most recent study using the Engel and Rothbarth methodologies. Recall that the Lewin Report concludes that the Engel methodology overstates actual child-rearing costs and the Rothbarth methodology understates actual child-rearing costs, hence any amount between the new measurements is considered an appropriate level for guidelines according to the Lewin Group.

#### Child-Rearing Costs by Child's Age

The Washington Schedule shows that older children (12-18 years old) cost about 23.6 percent more than younger children (0-11 years old). If we applied the same methodology that was used to adjust for age of children for the Washington Schedule, there would be no adjustment for the Rothbarth estimator and a 26 percent adjustment for the Engel estimator. There is no adjustment for the Rothbarth estimator because Dr. Betson found no significant differences in child-rearing costs by age of the child using the Rothbarth estimator. Although he did find a difference using the Engel estimator, the difference is only statistically significant for younger children (0-5 years old). Younger children cost 29 percent less than middle-age children. The difference between middle-age children (6-11 years old) and older children (12-17 years old) based on the Engel estimator was eight percent, but not statistically significant. For one-child families, Dr. Lino's study indicates that children ages 12-17 years old costs 12 percent more than children 11 years old or less. 15

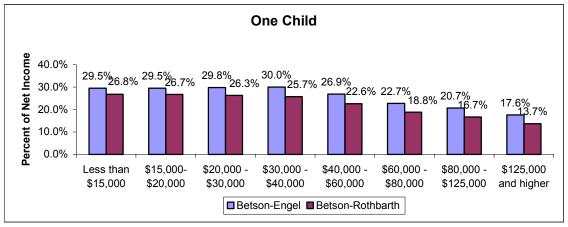
<sup>&</sup>lt;sup>15</sup>Calculated from Table ES1 (Lino 2004).

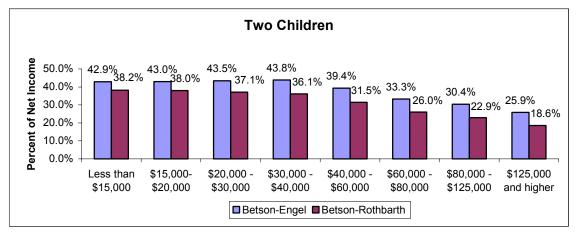


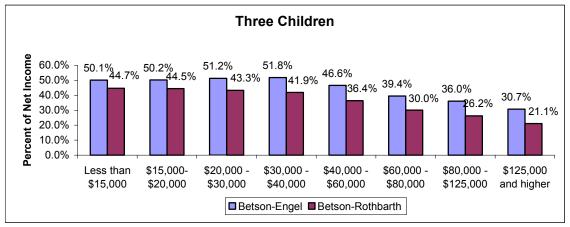
Exhibit 4

Comparison of 2001 Measurements of Child-Rearing Costs

Developed by Dr. Betson Using Rothbarth and Engel Methodologies









### **Chapter III**

# Comparison of Washington Schedule to New Measurements of Child-Rearing Costs

This chapter compares the existing Washington Schedule to the new measurements of child-rearing costs and current poverty levels. The purpose of the comparisons is to determine whether the existing Schedule is adequate. The new measurements of child-rearing costs are discussed in the previous chapter. They are adjusted such they are comparable to the existing Washington Schedule (i.e., exclude child care cost, include ordinary medical expenses) and updated to current (2004) price levels and incomes. In order to make the new measurements of child-rearing costs comparable, it was necessary to develop updated Schedules. The methodology is described in Appendix I. An updated Schedule based on the Rothbarth estimator is provided in Appendix II and an updated Schedule based on the Engel estimator is provided in Appendix III. Neither Schedule adjusts for age differences because Dr. Betson did not find statistically significant differences in child-rearing expenditures by the child's age. 16

Current (2004) poverty guidelines level for each additional person in a household is \$265 per month.<sup>17</sup> For one person, the poverty guidelines level is \$776, so the total poverty guidelines level for a family of two is \$1,041 per month (\$776 + \$265). We use the \$265 per child amount when comparing the Schedule amounts to poverty levels. The poverty level is sometimes greater than the new measurements of child-rearing costs, specifically among very low-income families.

The comparisons do not include additional factors that may be considered in the determination of support under the Washington Guidelines (e.g., the basic subsistence limitation, permissible deviation factors), although many of these factors would result in even lower award amounts. Many of these factors will be addressed individually in subsequent reports.

#### SUMMARY OF FINDINGS

Exhibit 5 summarizes the findings from the comparison. It shows the percent of basic obligations under the existing Washington Schedule that are below the lower bound of the estimates of child-rearing costs. In other words, this is the percent of the existing Schedule that is inadequate. As discussed in the previous chapter, this comparison is recommended in a DHHS report to identify where state child support guidelines are unambiguously below actual child-rearing costs. It also shows the frequency of orders by number of

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<sup>&</sup>lt;sup>16</sup>There is an exception among younger children based on the Engel estimator. Younger children (0-5 years old) cost significantly less than children ages 6 years or older, but there is no statistical difference in child-rearing costs between children ages 6-11 years and children ages 12-17 years old. Consequentially, the economic evidence does not support an adjustment for age of the child other than a downward adjustment for younger children 0-5 years old if the state guidelines rely on the Engel estimator. If the state guidelines rely on the Rothbarth estimator, there is no economic evidence to support any adjustment. Nonetheless, even under the Engel estimator, an adjustment for 0-5 years would probably not be used regularly since children in divorce cases tend to be older and there is some evidence that even in non-marital births, child support is not established immediately.

<sup>&</sup>lt;sup>17</sup>Federal Register, 2004 Vol. 69, No. 30 February 13, 2004, pp. 7336-7338.



children according to findings from a recent case file review.<sup>18</sup> This is helpful toward identifying the impact of applying the inadequate Schedule amounts.

#### The major findings are:

- A substantial proportion of the existing Schedule is below the current costs of child rearing. Over a third (35.6%) of the existing Washington Schedule is below the measurements of child-rearing costs and 17 percent of it is below poverty guidelines.
- About two thirds of the Schedule for young children is below the current costs of child rearing. Almost two thirds (61.6%) of the existing Washington Schedule for children ages 0-11 years old is below the measurements of child-rearing costs and 21 percent of it is below poverty guidelines. All of the one-and two-child basic obligations for young children under the current Washington Schedule are inadequate.
- The majority of the Schedule covering one child is below the current costs of child rearing. The majority (71%) of one-child basic obligations under the existing Schedule are below the current costs of child rearing. This is of particular concern because the majority (67%) of child support orders cover one child. All (100%) of the basic obligations under the existing Washington Schedule for one child ages 0-11 years are below the current measurements of child-rearing costs. Almost half (42%) of the basic obligations under the existing Washington Schedule for one child ages 12-18 years are below the current measurements of child-rearing costs.

Based on these comparisons, we conclude that the existing Schedule is inadequate.

	Exhibit 5													
			Summary of											
	Comparison of Existing Washington Schedule to													
Current Measurements of Child-Rearing Costs														
	Percent of Basic Obligations below Percent of Basic Obligations below Child-Rearing Costs Poverty													
Number of Children	Percent of Cases with X Number of Children	Cases vith X amounts (ages 0-11)  Schedule B Amounts (ages 12-18)  Schedule A Amounts (ages 0-11)  Schedule A Amounts (ages 0-11)												
1 Child	66.7%	100%	42%	71.1%	9%	5%	7.0%							
2 Children	25.3%	100%	6%	53.1%	14%	9%	11.7%							
3 Children		39%	0%	19.5%	20%	14%	17.2%							
4 Children	8%	33%	0%	16.4%	25%	19%	21.9%							
5 Children		36%	0%	18.0%	34%	23%	28.9%							
ALL	100%	61.6%	9.7%	35.6%	20.6%	14.1%	17.3%							

#### **Detailed Comparisons**

Exhibits 6 and 7 provide side-by-side comparisons of the existing Washington Schedule to the current measurements of child-rearing costs and poverty levels. Exhibit 6 provides side-by-side comparison of the existing Washington Schedule to the measurements of child-rearing costs based on the Rothbarth and Engel estimators (i.e., lower and upper bounds of estimates of child-rearing costs). It starts at \$700 although the

<sup>&</sup>lt;sup>18</sup>Stirling (2003).



Washington Schedule starts at \$600 because child-rearing costs are not estimated for very low incomes. Areas of the Washington Schedule that are less than the Rothbarth estimator that are inadequate are highlighted in Exhibit 6.

Exhibit 7 provides a side-by-side comparison of the existing Washington Schedule to current poverty guidelines. Areas of the Washington Schedule are also highlighted similar to Exhibit 7. Yet, in viewing the results of the comparisons in Exhibit 7, there are a few caveats. First, note that the poverty guidelines assume that each additional child costs the same as the previous child. In other words, the poverty guidelines do not consider any economies of scale realized from additional children. Secondly, in some instances—particularly at low incomes and for larger numbers of children—the poverty guidelines may exceed the estimates of child-rearing costs. This suggests that families in this range make poverty-level expenditures.

In addition, graphical comparisons of the Washington Schedule and updated schedules based on the Rothbarth and Engel estimators for a variety of case scenarios are provided in Appendix IV.



										Exhibit										
					Comp	arison o					ent Measure e Is below C				ng Costs					
		0	na Child			Torre		indicate	wnere s			niia-Rear	ing Cost		n Children			Fire	Children	
			ne Child				Children				e Children		Four Children				Five Children			
Combined	Wash A	ington B	New Measu Lower	Upper	Wash A	ington B	New Measu Lower	Upper	Wash A	ington B	New Measu Lower	Upper	Wash A	ington B	New Measu Lower	rements Upper	Wash	ington B	New Measu Lower	
Monthly	Age	Age	Bound	Bound	Age	Age	Bound	Bound	Age	Age	Bound	Bound	Age	Age	Bound	Bound	Age	Age	Bound	Upper Bound
Income	0-11	12-18	(Rothbarth)	(Engel)	0-11	12-18	(Rothbarth)	(Engel)	0-11	12-18	(Rothbarth)	(Engel)	0-11	12-18	(Rothbarth)	(Engel)	0-11	12-18	(Rothbarth)	(Engel)
700	155	191	184	200	240	296	259	289	300	372	301	337	340	420	335	372	370	455	369	403
800	177	218	210	228	274	340	295	330	345	426	342	384	388	480	382	425	420	520	420	460
900	199	246	235	257	308	382	331	371	387	477	384	432	436	540	428	477	475	590	471	517
1000	220	272	260	285	342	422	367	412	429	531	425	479	484	596	474	529	525	650	521	574
1100	242	299	286	314	376	464	403	454	471	582	467	527	532	656	520	582	580	715	572	631
1200	264	326	311	342	410	506	439	495	513	633	508	574	576	716	566	634	630	780	623	688
1300	285	352	336	371	442	548	475	536	555	684	549	621	624	772	613	687	680	840	674	744
1400	307	379	362	399	476	588	511	577	597	738	591	669	672	832	659	739	735	905	725	801
1500	327	404	386	428	508	626	544	618	636	786	629	716	716	884	701	792	780	965	771	858
1600	347	428	408	456	538	666	575	658	675	834	663	764	760	940	739	844	830	1025	813	915
1700	367	453	431	484	570	704	605	698	714	882	696	812	804	992	776	897	875	1085	854	972
1800 1900	387 407	478 503	453 477	512 540	600	742 780	635 666	739 779	753 792	930 978	730 765	859 907	848 892	1048 1100	814 853	949 1002	925 970	1140 1200	895 939	1029 1086
2000	407	503	501	540 568	662	818	701	819	831	1026	765 806	907 954	936	1156	853 899	1002	1020	1200	939	1143
2100	447	552	526	595	694	858	735	859	867	1026	847	1002	980	1212	944	1107	1020	1320	1039	1200
2200	467	577	551	623	724	896	770	899	906	1122	888	1049	1024	1264	990	1160	1115	1380	1089	1257
2300	487	601	575	651	756	934	804	940	945	1170	928	1097	1068	1320	1034	1212	1165	1440	1138	1314
2400	506	626	598	679	786	972	835	980	984	1218	962	1145	1112	1372	1073	1265	1210	1495	1180	1371
2500	526	650	621	707	816	1010	865	1021	1023	1263	996	1193	1152	1424	1111	1318	1255	1555	1222	1429
2600	534	661	644	736	832	1026	895	1062	1038	1284	1030	1242	1172	1448	1149	1373	1280	1580	1264	1488
2700	542	670	667	765	842	1040	926	1104	1053	1305	1065	1291	1192	1472	1187	1427	1295	1605	1306	1547
2800	549	679	689	793	854	1054	958	1146	1068	1320	1101	1340	1204	1488	1227	1481	1310	1620	1350	1605
2900	556	686	712	822	862	1066	989	1188	1080	1335	1137	1389	1220	1504	1268	1535	1330	1640	1395	1664
3000	561	693	735	851	872	1076	1021	1229	1092	1347	1174	1438	1232	1520	1309	1589	1340	1655	1439	1723
3100	566	699	758	880	878	1086	1053	1271	1101	1359	1210	1487	1240	1532	1349	1643	1350	1670	1484	1781
3200	569	704	771	896	884	1092	1069	1294	1107	1371	1227	1512	1248	1544	1368	1671	1360	1680	1505	1812
3300	573	708	780	913	890	1098	1080	1317	1113	1377	1237	1538	1256	1552	1379	1699	1365	1695	1517	1842
3400	574	710	790	930	892	1102	1092	1339	1116	1380	1248	1563	1260	1556	1391	1727	1370	1700	1530	1872
3500	575	711	800	947	894	1104	1103	1362	1119	1383	1258	1589	1264	1560	1403	1755	1375	1705	1543	1903
3600 3700	577 578	712 713	809 819	964 980	896	1106	1114	1385 1408	1122 1125	1386 1389	1268 1279	1614 1639	1268 1272	1564 1568	1414 1426	1783 1811	1380 1385	1710 1715	1555 1568	1933 1964
3700	5/8	713	819 830	980 996	898 904	1108 1116	1126 1138	1408 1430	1125	1389	1279 1290	1639 1664	1272	1568 1576	1426 1439	1811 1839	1385	1715	1568 1583	1964 1993
3900	596	719	830	1010	904	1116	1152	1430	1158	1431	1303	1687	1304	1616	1439	1839	1420	1720	1583	2021
4000	609	753	842 854	1010	946	1168	1166	1450	1185	1431	1303	1710	1304	1652	1453	1889	1420	1800	1615	2021
4000	009	133	004	1024	940	1100	1100	14/1	1100	1404	1317	1710	1330	1002	1400	1009	1400	1800	1015	2040



#### Exhibit 6 Comparison of Washington Schedule to Current Measurements of Child-Rearing Costs Gray Areas Indicate Where Schedule Is below Child-Rearing Costs One Child Two Children **Three Children Four Children Five Children** Washington New Measurements Combined Lower В Lower Upper Α В Lower Upper Α Lower Upper Α Lower Monthly Age 12-18 Bound Age 12-18 Bound Bound Age 0-11 Age 12-18 Bound Bound Age 12-18 Bound Bound Age 0-11 Age 12-18 Bound Bound Age 0-11 Bound Age 0-11 Age 0-11 (Rothbarth) (Rothbarth) (Rothbarth) Income (Rothbarth (Engel) (Engel) (Engel) (Engel) (Rothbarth) (Engel)



	Exhibit 7 Comparison of Washington Schedule to Poverty Guidelines Gray Areas Indicate Where Schedule Is below Poverty														
		One Child			Two Childre		Three Children			Four Children			Five Children		
Combined Monthly income	A Age 0-11	B Age 12-18	Poverty (One Child)	A Age 0-11	B Age 12-18	Poverty (Two Children)	A Age 0-11	B Age 12-18	Poverty (Three Children)	A Age 0-11	B Age 12-18	Poverty (Four Children)	A Age 0-11	B Age 12-18	Poverty (Five Children)
600	133	164	265	206	254	F20	258	318	705	292	360	1060	315	390	1325
700	155	191	265	240	296	530 530	300	372	795 795	340	420	1060	370	455	1325
800	177	218	265	274	340	530	345	426	795 795	388	480	1060	420	520	1325
900	199	246	265	308	382	530	387	477	795	436	540	1060	475	590	1325
1000	220	272	265	342	422	530	429	531	795	484	596	1060	525	650	1325
1100	242	299	265	376	464	530	471	582	795	532	656	1060	580	715	1325
1200	264	326	265	410	506	530	513	633	795	576	716	1060	630	780	1325
1300	285	352	265	442	548	530	555	684	795	624	772	1060	680	840	1325
1400	307	379	265	476	588	530	597	738	795	672	832	1060	735	905	1325
1500	327	404	265	508	626	530	636	786	795	716	884	1060	780	965	1325
1600	347	428	265	538	666	530	675	834	795	760	940	1060	830	1025	1325
1700	367	453	265	570	704	530	714	882	795	804	992	1060	875	1085	1325
1800	387	478	265	600	742	530	753	930	795	848	1048	1060	925	1140	1325
1900	407	503	265	632	780	530	792	978	795	892	1100	1060	970	1200	1325
2000	427	527	265	662	818	530	831	1026	795	936	1156	1060	1020	1260	1325
2100	447	552	265	694	858	530	867	1074	795	980	1212	1060	1065	1320	1325
2200	467	577	265	724	896	530	906	1122	795	1024	1264	1060	1115	1380	1325
2300	487	601	265	756	934	530	945	1170	795	1068	1320	1060	1165	1440	1325
2400	506	626	265	786	972	530	984	1218	795	1112	1372	1060	1210	1495	1325
2500	526	650	265	816	1010	530	1023	1263	795	1152	1424	1060	1255	1555	1325
2600	534	661	265	832	1026	530	1038	1284	795	1172	1448	1060	1280	1580	1325
2700	542	670	265	842	1040	530	1053	1305	795	1192	1472	1060	1295	1605	1325
2800	549	679	265	854	1054	530	1068	1320	795	1204	1488	1060	1310	1620	1325
2900	556	686	265	862	1066	530	1080	1335	795	1220	1504	1060	1330	1640	1325
3000	561	693	265	872	1076	530	1092	1347	795	1232	1520	1060	1340	1655	1325
3100	566	699	265	878	1086	530	1101	1359	795	1240	1532	1060	1350	1670	1325
3200	569	704	265	884	1092	530	1107	1371	795	1248	1544	1060	1360	1680	1325
3300	573	708	265	890	1098	530	1113	1377	795	1256	1552	1060	1365	1695	1325
3400	574	710	265	892	1102	530	1116	1380	795	1260	1556	1060	1370	1700	1325
3500	575	711	265	894	1104	530	1119	1383	795	1264	1560	1060	1375	1705	1325
3600	577	712	265	896	1106	530	1122	1386	795	1268	1564	1060	1380	1710	1325
3700	578	713	265	898	1108	530	1125	1389	795	1272	1568	1060	1385	1715	1325
3800	581	719	265	904	1116	530	1131	1398	795	1276	1576	1060	1390	1720	1325



	Exhibit 7 Comparison of Washington Schedule to Poverty Guidelines														
						Areas Indica									
		One Child			Two Childre	en	T	hree Child	ren	F	our Childre	en		Five Childr	en
Combined Monthly income	A Age 0-11	B Age 12-18	Poverty (One Child)	A Age 0-11	B Age 12-18	Poverty (Two Children)	A Age 0-11	B Age 12-18	Poverty (Three Children)	A Age 0-11	B Age 12-18	Poverty (Four Children)	A Age 0-11	B Age 12-18	Poverty (Five Children)
3900	596	736	265	926	1144	530	1158	1431	795	1304	1616	1060	1420	1760	1325
4000	609	753	265	946	1168	530	1185	1464	795	1336	1652	1060	1455	1800	1325
4100	623	770	265	968	1196	530	1212	1500	795	1364	1688	1060	1490	1840	1325
4200	638	788	265	990	1222	530	1239	1533	795	1400	1724	1060	1525	1885	1325
4300	651	805	265	1012	1250	530	1266	1566	795	1428	1764	1060	1555	1925	1325
4400	664	821	265	1032	1274	530	1293	1596	795	1456	1796	1060	1585	1960	1325
4500	677	836	265	1050	1298	530	1314	1626	795	1484	1832	1060	1615	2000	1325
4600	689	851	265	1070	1322	530	1338	1656	795	1508	1868	1060	1645	2035	1325
4700	701	866	265	1090	1346	530	1365	1686	795	1536	1900	1060	1675	2070	1325
4800	713	882	265	1108	1370	530	1389	1716	795	1564	1932	1060	1705	2110	1325
4900	726	897	265	1128	1394	530	1410	1743	795	1592	1964	1060	1735	2145	1325
5000	738	912	265	1148	1416	530	1437	1776	795	1616	2000	1060	1765	2185	1325
5100	751	928	265	1168	1440	530	1461	1806	795	1644	2036	1060	1795	2215	1325
5200	763	943	265	1186	1464	530	1482	1833	795	1672	2068	1060	1825	2255	1325
5300	776	959	265	1204	1488	530	1509	1863	795	1700	2100	1060	1855	2290	1325
5400	788	974	265	1224	1512	530	1533	1896	795	1728	2132	1060	1885	2330	1325
5500	800	989	265	1244	1536	530	1554	1923	795	1756	2168	1060	1915	2365	1325
5600	812	1004	265	1264	1558	530	1581	1953	795	1784	2204	1060	1945	2400	1325
5700	825	1019	265	1282	1582	530	1605	1983	795	1808	2236	1060	1975	2440	1325
5800	837	1035	265	1300	1606	530	1629	2013	795	1836	2268	1060	2005	2475	1325
5900	850	1050	265	1320	1630	530	1653	2043	795	1864	2300	1060	2035	2510	1325
6000	862	1065	265	1340	1654	530	1677	2073	795	1892	2336	1060	2065	2545	1325
6100	875	1081	265	1360	1678	530	1701	2103	795	1916	2372	1060	2090	2585	1325
6200	887	1096	265	1378	1702	530	1725	2130	795	1944	2404	1060	2120	2620	1325
6300	899	1112	265	1398	1726	530	1749	2163	795	1972	2436	1060	2150	2660	1325
6400	911	1127	265	1418	1750	530	1773	2193	795	2000	2468	1060	2180	2695	1325
6500	924	1142	265	1436	1774	530	1797	2220	795	2024	2504	1060	2210	2730	1325
6600	936	1157	265	1456	1798	530	1821	2250	795	2052	2540	1060	2240	2770	1325
6700	949	1172	265	1474	1822	530	1845	2283	795	2080	2572	1060	2270	2805	1325
6800	961	1188	265	1494	1846	530	1869	2310	795	2108	2604	1060	2300	2840	1325
6900	974	1203	265	1514	1870	530	1893	2340	795	2132	2636	1060	2330	2875	1325
7000	986	1218	265	1534	1892	530	1917	2370	795	2160	2672	1060	2360	2915	1325

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# Appendix I Converting Estimates of Child-Rearing Costs To Updated Schedules



# Appendix I

# **Converting Estimates of Child-Rearing Costs To Updated Schedules**

In this Appendix, we detail the steps used to develop an updated schedule based on recent economic data: the new measurements of child-rearing costs and current price levels. In this Appendix, we detail the steps using the Betson-Rothbarth measurements. The same steps were used to develop an updated schedule based on the Betson-Engel measurements. Appendix II provides the Schedule based on the Betson-Rothbarth measurements. Appendix III provides the Schedule based on the Betson-Engel measurements. Recall from Chapter II that the Betson-Rothbarth measurements of child-rearing costs are considered the lower bound of actual child-rearing costs, and the Betson-Engel measurements of child-rearing costs are considered the upper bound of actual child-rearing costs.

To build an updated schedule, PSI started with the estimates shown in Exhibit 4. In addition, Dr. Betson also provided PSI staff with other information needed to develop a schedule for a range of net incomes in 2004 dollars from the same data source:

- percent of income devoted to expenditures;
- percent of total expenditures devoted to child-rearing costs for one, two and three-child families;
- percent of total expenditures devoted to child care costs; and
- percentage of total expenditures devoted to medical costs exceeding \$250 per child per year.

These amounts for the Betson-Rothbarth measurements are shown in Exhibit I-1. Similar amounts for the Betson-Engel measurements are shown at the end of this Appendix.<sup>1</sup> Dr. Betson converted the income ranges from the 1996-99 data to 2004 using the percentage change in the Consumer Price Index published by the Bureau of Labor Statistics over the same time period.

Policy Studies Inc. Appendix I - 1

<sup>&</sup>lt;sup>1</sup>The income ranges for the Betson-Engel measurements are slightly different because they were first generated in 2002, then updated to 2004 price levels using changes in the Consumer Price Index published by the Bureau of Labor Statistics.



Exhibit I-1 Betson-Rothbarth Measurements and Other Expenditures Data from 1996-1999 CEX							
Column A	Column B	Column C	Column D	Column E	Column F	Column G	
Family Net Income (2004 dollars)	Total Expenditures as a Percent of Net Income	Percent of Total Expenditures Devoted to One Child	Percent of Total Expenditures Devoted to Two Children	Percent of Total Expenditures Devoted to Three Children	Percent of Expenditures Devoted to Child Care Costs	Percent of Expenditures Devoted to Extraordinary Medical Expenses <sup>2</sup>	
< \$15,000	>100%	27.4%	38.6%	45.0%	0.2%	2.5%	
\$15,000-\$20,000	>100%	26.7%	37.9%	44.1%	0.4%	1.8%	
\$20,000-\$25,000	>100%	26.5%	37.6%	43.8%	0.9%	2.2%	
\$25,000-\$30,000	>100%	26.4%	37.3%	43.5%	0.7%	2.6%	
\$30,000-\$35,000	>100%	26.2%	36.8%	42.9%	0.8%	2.7%	
\$35,000-\$40,000	>100%	25.9%	36.4%	42.3%	0.7%	3.2%	
\$40,000-\$50,000	92.4%	25.7%	36.1%	41.9%	1.2%	2.9%	
\$50,000-\$60,000	88.2%	25.5%	35.6%	41.1%	1.7%	3.5%	
\$60,000-\$70,000	78.1%	25.4%	35.4%	40.9%	1.5%	3.0%	
\$70,000-\$80,000	74.8%	25.2%	35.0%	40.4%	1.6%	3.1%	
\$80,000-\$90,000	73.1%	25.0%	34.6%	39.9%	1.7%	2.6%	
\$90,000-\$100,000	68.5%	24.9%	34.4%	39.6%	1.6%	2.6%	
\$100,000-\$125,000	65.4%	24.6%	33.8%	38.8%	1.5%	3.2%	
>\$125,000	54.5%	24.1%	32.9%	37.5%	1.8%	2.7%	

### STEPS USED TO UPDATE THE SCHEDULE

There are six steps used to develop an updated schedule from Dr. Betson's measurements of child-rearing costs.

### Step 1: Subtract child care expenses

The first step is to subtract child care expenses from the percent of total expenditures allocated to child-rearing. For example, for net incomes below \$15,000 and one child, the percentage from Column F is subtracted from the percentage in Column C [27.4% - 0.23% = 27.17%].

# Step 2: Calculate the child's share of extraordinary medical expenses

The child's share of extraordinary medical expenses is determined by multiplying the percentage of total expenditures devoted to the child by the percent of total expenditures devoted to extraordinary medical expenses. For example, for net incomes below \$15,000 and one child, the child's share is Column C multiplied by Column G [27.4% X 2.53% = 0.69%].

Appendix I - 2 Policy Studies Inc.

<sup>&</sup>lt;sup>2</sup>\$250 approximates average out-of-pocket medical costs per child.



# Step 3: Subtract the child's share of extraordinary medical expenses

The next step is to subtract the child's share of extraordinary medical expenses from the percent of total expenditures allocated to child rearing less child care expenses, which were subtracted from Step 1. For example, following the example used in Steps 1 and 2 which is for net incomes below \$15,000 and one child, the percentage calculated from Step 2 is subtracted from the percentage in Step 1 [27.17% - 0.69% = 26.48%].

# Step 4: Adjust for net expenditures

In Step 4, we adjust for the percent of net income devoted to expenditures by multiplying the percentage determined from Step 3 by the percentage in Column B. If the amount in Column B is more than 100 percent, we use 100 percent. In our example where the combined net income is less than \$15,000 per year and there is one child, the percentage from Step 4 is multiplied by the percentage in Column B [26.48% X 100% = 26.48%].

# Step 5: Extend percentages to Larger Household Sizes

Due to an insufficient number of families with four or more children in the CEX, Dr. Betson only estimates child-rearing costs for one-, two-, and three-child families. In order to extend these to a larger number of children, we use the equivalence scale recommended by the Panel on Poverty and Family Assistance, a panel assembled by the National Research Council to review measures of poverty is used.<sup>3</sup> The recommended formula is

= (Number of adults +  $0.7 \times 10^{-7} \times 10^{-7$ 

While the current Washington Schedule considers one through five children, the updated schedule consider up to six children. Using the formula above, we arrive at the following equivalency scales: 2.69 for three children; 3.00 for four children; and 3.30 for five children. In turn, these are converted to multipliers by calculating the percentage increase. The multipliers are: 1.115 (3.00 divided by 2.69) for four children; and 1.10 (3.30 divided by 3.00) for five children. The multiplier of 1.115 is applied to three-child amounts to arrive at four-child amounts; and, the multiplier of 1.10 is applied to the four-child amounts to arrive at five-child amounts.

The multipliers were used as constants for all income ranges. The decreasing size of the multiplier as the number of children increases reflects two phenomena: (1) economies of scale as more children are added to the household (e.g., sharing of household items); and (2) reallocation of expenditures. The reallocation occurs as adults reduce their share of expenditures to provide for more children and as each child's share of expenditures is reduced to accommodate the needs of additional children. That is, as there are more people to share the economic pie, the share for each family member must decrease.

Policy Studies Inc. Appendix I - 3

<sup>&</sup>lt;sup>3</sup>Constance F. Citro and Robert T. Michael, Editors. *Measuring Poverty: A New Approach*, National Academy Press, Washington, D.C. (1995).



# Step 6: Calculate marginal percentages

The above steps result in a table that relates levels of net income to the proportion of income spent on children in one to six-child households. One further adjustment, however, is needed before the table can be used to prepare a Schedule of Support Obligations that will not result in "notches" in obligation amounts as income increases. That is, the Rothbarth estimates are assumed to apply at the midpoint of each net income range. For net incomes that lie between these midpoints, marginal proportions were computed so that obligations would increase gradually as income increases.

An example will illustrate why this method of smoothing the support schedule is needed. Assume we have two, two-child households, one earning between \$40,000 and \$50,000 per year (\$3,333 to \$4,167 per month) and the other earning between \$50,000 and \$60,000 per year (\$4,167 to \$5,000 per month). The proportion of net income spent on the two children in the lower income household is estimated to be 30.16 percent. The comparable proportion in the higher income household is estimated to be 27.20 percent. If actual income in the first household were \$4,150 per month, the total support obligation would be \$1,252 monthly (\$4,150 x .3016). If actual income in the second household were \$4,200, the total monthly support obligation would be \$1,142 (\$4,200 x .2720); \$110 less per month than the support obligation in the lower income household. The use of marginal proportions between the midpoints of income ranges eliminates this effect and creates a smooth increase in the total support obligation as household income increases.

# **Summary**

After this last adjustment, the table of support proportions, shown below in Exhibit I-2 for the Rothbarth estimator, can be prepared. (The comparable Table for the Engel estimator is at the end of the Appendix.) This table of support proportions is analogous to a tax rate schedule. Each net income midpoint in the table is associated with two proportions for each number of children being supported. The first proportion is applied to the income midpoint and the proportion just below it is applied to income between that midpoint and the next highest midpoint. An example best illustrates how this procedure results in a basic support obligation if the net income and the number of children are known.

Assume that the noncustodial parent has monthly net income of \$1,500 and the custodial parent has \$1,000. The computation of a child support obligation for two children using the information in Exhibit I-1 involves the following three basic steps.

<u>Step 1</u>: Add the monthly net incomes of both parents (\$1,500 + \$1,000 = \$2,500) and compute their proportionate share of combined income. Custodial parent earns 40 percent of combined net (\$1000/\$2,500), while noncustodial parent's share is 60 percent.

<u>Step 2</u>: Use the combined income from Step 1 to compute a basic support obligation using the proportions in Exhibit I-2.

• Find the income midpoint just below the combined net income (i.e., \$2,292 per month) and multiply the amount by the proportional support for two children: [\$2,292 x .3498] = \$802.

Appendix I - 4 Policy Studies Inc.



- Subtract the midpoint from the combined net income of the parents and multiply by the marginal proportion:  $[(\$2,500-\$2,292) \times .3045] = \$63$ .
- Add the two obligation amounts: \$802 + \$63 = \$865. This obligation represents the monthly amount estimated to have been spent on the children jointly by the parents if the household had remained intact.

Step 3: Pro-rate the basic support obligation between the parents based on their proportionate shares of net income: (1) noncustodial parent's share is \$865 x .60 = \$519, (2) custodial parent's share is \$865 x .40 = \$346. The noncustodial parent's computed obligation is payable as child support. The custodial parent's computed obligation is retained and is presumed to be spent directly on the child. This procedure simulates spending patterns in an intact household in which the proportion of income allocated to the children depends on total family income.

Exhibit I-2 UPDATED TABLE OF SUPPORT PROPORTIONS (Rothbarth Estimator)							
Monthly Income	One Child	Two Children	Three Children	Four Children	Five Children	Six Children	
ФСОБ	26.48%	37.16%	43.17%	48.14%	52.95%	57.61%	
\$625	25.31%	35.96%	41.41%	46.17%	50.79%	55.26%	
¢1 450	25.81%	36.47%	42.16%	47.01%	51.72%	56.27%	
\$1,458	22.56%	30.10%	33.64%	37.51%	41.26%	44.89%	
\$1,875	25.09%	35.06%	40.27%	44.90%	49.39%	53.74%	
\$1,075	24.75%	34.63%	40.76%	45.45%	50.00%	54.40%	
\$2,292	25.03%	34.98%	40.36%	45.00%	49.50%	53.86%	
ΨΖ,Ζ3Ζ	22.78%	30.45%	34.24%	38.17%	41.99%	45.69%	
\$2,708	24.68%	34.28%	39.42%	43.95%	48.35%	52.60%	
Ψ2,700	22.82%	31.70%	36.36%	40.54%	44.59%	48.51%	
\$3,125	24.43%	33.94%	39.01%	43.50%	47.84%	52.06%	
ψ3,123	9.66%	11.30%	10.36%	11.55%	12.70%	13.82%	
\$3,750	21.97%	30.16%	34.23%	38.17%	41.99%	45.68%	
φο,του	11.92%	13.86%	13.15%	14.66%	16.13%	17.55%	
\$4,583	20.14%	27.20%	30.40%	33.90%	37.29%	40.57%	
ψ1,000	6.45%	9.01%	10.68%	11.91%	13.10%	14.25%	
\$5,417	18.04%	24.40%	27.37%	30.51%	33.56%	36.52%	
φο, ττι	10.80%	13.03%	13.99%	15.59%	17.15%	18.66%	
\$6,250	17.07%	22.89%	25.58%	28.52%	31.38%	34.14%	
ψ0,200	12.46%	16.22%	17.45%	19.46%	21.41%	23.29%	
\$7,083	16.53%	22.10%	24.63%	27.46%	30.20%	32.86%	
Ψ1,000	6.78%	9.59%	11.12%	12.40%	13.64%	14.84%	
\$7,917	15.50%	20.78%	23.20%	25.87%	28.46%	30.96%	
Ψ.,σ.,	9.34%	11.98%	12.65%	14.10%	15.51%	16.88%	
\$9,375	14.55%	19.42%	21.56%	24.04%	26.45%	28.77%	
φο,οιο	5.83%	6.98%	6.96%	7.75%	8.53%	9.28%	
\$13,754	11.77%	15.46%	16.91%	18.86%	20.74%	22.57%	

Policy Studies Inc. Appendix I - 5



The table of support proportions is then used to prepare an updated schedule of obligations, shown in Appendix II.

#### OTHER CONSIDERATIONS

## **Extending the Schedule to Higher Incomes**

The current Washington Schedule is advisory for incomes of \$5,000 to \$7,000 per month and stops at \$7,000 per month. According to the 2003 American Community Survey done by the U.S. Census Bureau, 19 percent of Washington families have income over \$100,000 per year (\$8,333 per month). The new Betson-Rothbarth and Betson-Engel measurements allow the updated schedule to be extended to a combined monthly net income of \$13,500.

# Adding Income Intervals

The updated schedules in Appendices II and III are built with \$50 net income intervals, while the existing Washington Schedule increases by \$100 intervals. The added income intervals may help to alleviate errors in guidelines calculations that result from rounding errors.

# Age of the Child

The adjustment for age of the child is eliminated per Dr. Betson's finding that the difference is generally not statistically different. This finding is discussed in detail in Chapter II.

#### DATA DESCRIPTIONS AND ASSUMPTIONS

Dr. Betson's original data consists of households surveyed in 1996-99 as part of the CEX, which is the most reliable and extensive data set relating expenditures to income. The CEX focuses on measurements of current consumption. More information about the CEX is provided in Chapter II.

#### **Family Net Income**

Gross and net incomes are reported by families participating in the CEX. The difference between gross and net income is taxes. In fact, the CEX uses the terms "income before taxes" and "income after taxes" instead of gross and net income. Income before taxes is the total money earnings and selected money receipt. It includes wages and salary; self-employment income; Social Security benefits, pensions income, rental income, unemployment compensation, workers' compensation, veteran's benefits, public assistance, and other sources of income.

The BLS is concerned that income may be under-reported in the CEX. Although underreporting of income is a problem inherent to most surveys, the BLS is particularly concerned because expenditures exceed income among low-income households participating in the CEX. The BLS is unclear whether this results from underreporting of income or these households are actually spending more than their incomes because of an unemployment spell, being a student, or otherwise withdrawing from their savings. In an effort to improve income information, the BLS added and revised income questions in 2001. It is still too early to determine if

Appendix I - 6 Policy Studies Inc.



these changes have resulted in any improvements or insight on whether income is actually being underreported.

#### **Expenditures to Income Ratios**

Expenditures in the CEX refer to expenditures for current consumption. Specifically, it consists of the costs of goods and services, including the taxes on the good or service, acquired during the survey period. Since the CEX focuses on expenditures for current consumption, mortgage principal payments are excluded because they are considered a form of savings. Current consumption, however, does include other expenditures for housing such as mortgage interest payments, property taxes and rent. In measuring child-rearing costs, personal insurance, pensions and cash contributions are also excluded by most economists because they also are not part of current consumption or are expended on someone outside the immediate household. In addition, Dr. Betson excludes the net purchase price of vehicles since vehicles are typically kept for more than a year. If the data were available, he would only include the amount of the vehicle consumed in that year (e.g., depreciation of the vehicle).

It is assumed that expenditures cannot exceed income. Without this assumption, the amounts in the updated schedule for low incomes would be significantly more.

## Percentages of Total Expenditures Devoted to One, Two and Three Children

The percentages shown in Exhibit I-1 are calculated by Dr. Betson using the Rothbarth methodology. Specifically, two equally well-off households are compared: one with children; and, the other without children. The difference is deemed to be child-rearing expenditures.

#### **Child Care Expenses**

These percentages represent the average percent of total expenditures devoted to child care expenses across all families regardless whether there is any child care expenses. If only those families with actual child care costs were included, the percentages would be much higher. Nonetheless, the percentage across all families is necessary to back out child care expenses from total child-rearing expenses.

Another limitation is that it is impossible to distinguish between "necessary" child care expenses (e.g., those incurred to allow someone to work) from "discretionary" expenses. Only "necessary" child care expenses should probably be subtracted because most state guidelines only consider work-related child care expenses. Since this cannot be done, however, child care expenses are overstated. Further, since child care expenses are subtracted, more is being subtracted than there should be. This would bias the schedule amounts downward. Yet, since "discretionary" child care expenses are likely to compose a minuscule share of total expenditures, the magnitude of any bias, if it exists, is likely to be negligible.

### **Extraordinary Medical Expenses**

Medical expenses on children cannot be distinguished from expenses on adult household members, so it is assumed that the child's share of medical expenses is the same as the child's share of total medical expenses. If the child's medical expenses actually cost more, this will result in upward biases to the schedule amounts. Conversely, if the child's medical expenses actually cost more, this will result in downward biases to the

Policy Studies Inc. Appendix I - 7



schedule amounts. Nonetheless, if any bias exists, the amount is likely to be very small because extraordinary medical expenses only compose a small portion of total expenditures.

In early Income Shares schedules, the amount of ordinary medical expenses included in the base support amount was \$100 per child per year. In the last few years, several states have increased that amount to \$250 per child per year. The latter amount approximates annual out-of-pocket medical expenditures on children. <sup>4</sup> The current Washington guidelines define extraordinary health care expenses as those that exceed five percent of the basic support obligation. If an updated schedule is adopted, this definition should be changed to reflect the threshold of \$250 per child per year.

Appendix I - 8 Policy Studies Inc.

<sup>4\$250</sup> per child per year approximates out-of-pocket medical expenses. [M. McCormick, R. Weinick, A. Elixhauser, et al., "Annual Report on Access to and Utilization of Health Care for Children and Youth in the United States—2000." *Ambulatory Pediatrics*, 1(1): January-February 2001. (Agency for Healthcare Research and Quality 01-R036).]



#### Exhibit I-3 Betson-Engel Measurements and Other Expenditures Data from 1996-1999 CEX Column D Column F Column A Column B Column C Column E Column G Percent of Percent of Percent of Percent of Percent of Expenditures Total Total Total Total Expenditures Family Net Income Expenditures Devoted to Expenditures Expenditures Expenditures Devoted to as a Percent (2004 dollars) Extraordinary Devoted to Devoted to Devoted to Child Care of Net Income Medical One Child Two Children Three Children Costs Expenses<sup>5</sup> < \$15,935 >100% 29.5% 42.9% 50.1% 0.2% 2.5% 43.0% \$15,935-\$21,247 >100% 29.5% 50.2% 0.6% 1.5% 29.7% >100% 43.3% 50.9% 0.7% 2.3% \$21,247-\$26,559 \$26,559-\$31,871 >100% 29.9% 43.6% 51.5% 0.8% 2.8% \$31,871-\$42,494 >100% 30.0% 43.8% 51.8% 0.8% 3.0% 94.2% 30.1% 44.0% 52.7% 1.3% 2.8% \$42,494-\$47,806 \$47,806-\$53,118 90.0% 30.1% 44.1% 52.2% 1.4% 3.0% \$53,118-\$63,742 86.2% 30.2% 44.2% 52.2% 1.5% 3.4% 75.4% 30.2% 44.2% 52.3% 1.7% 2.6% \$63,742-\$74,365 \$74,365-\$84,989 74.9% 30.3% 44.3% 52.5% 1.6% 3.1% \$84,989-\$106,236 70.4% 30.3% 44.4% 52.6% 1.7% 2.6% 64.7% 30.3% 44.5% 52.8% 1.5% \$106,236-\$132,795 3.1% >\$132,795 57.9% 30.4% 44.6% 53.0% 1.7% 2.7%

Policy Studies Inc. Appendix I - 9

<sup>&</sup>lt;sup>5</sup>\$250 approximates average out-of-pocket medical costs per child.



Exhibit I-4 UPDATED TABLE OF SUPPORT PROPORTIONS							
Monthly Income	One Child	Two Children	Three Children	Four Children	Five Children	Six Children	
\$664	28.54%	41.37%	48.15%	53.21%	57.68%	61.72%	
	28.50%	41.01%	47.44%	52.42%	56.83%	60.80%	
\$1,549	28.52%	41.17%	47.75%	52.76%	57.19%	61.20%	
	27.89%	40.29%	47.63%	52.63%	57.05%	61.04%	
	28.38%	40.97%	47.72%	52.73%	57.16%	61.16%	
\$1,992	27.81%	40.06%	47.55%	52.54%	56.95%	60.94%	
\$2,435	28.27%	40.81%	47.69%	52.70%	57.12%	61.12%	
	28.76%	41.71%	49.06%	54.21%	58.76%	62.88%	
\$3,099	28.38%	41.00%	47.98%	53.02%	57.47%	61.50%	
	16.80%	22.91%	25.37%	28.04%	30.39%	32.52%	
\$3,763	26.34%	37.81%	43.99%	48.61%	52.69%	56.38%	
\$4,205	14.00%	20.35%	23.01%	25.42%	27.56%	29.49%	
	25.04%	35.97%	41.78%	46.17%	50.05%	53.55%	
φ4,203	16.26%	23.11%	26.33%	29.10%	31.54%	33.75%	
	23.84%	34.22%	39.68%	43.84%	47.52%	50.85%	
\$4,869	4.53%	5.78%	5.88%	6.50%	7.04%	7.54%	
\$5,754	20.87%	29.84%	34.48%	38.10%	41.30%	44.19%	
	20.14%	29.02%	34.32%	37.92%	41.11%	43.99%	
\$6,640	20.77%	29.73%	34.46%	38.07%	41.27%	44.16%	
\$7,968	13.72%	19.94%	22.93%	25.33%	27.46%	29.38%	
	19.60%	28.10%	32.53%	35.95%	38.97%	41.70%	
·	11.96%	17.70%	21.06%	23.27%	25.23%	26.99%	
	18.07%	26.02%	30.24%	33.41%	36.22%	38.76%	
\$9,960	10.74%	15.17%	17.39%	19.22%	20.83%	22.29%	
\$13,512	16.14%	23.17%	26.86%	29.68%	32.18%	34.43%	

Appendix I - 10 Policy Studies Inc.



# Appendix II Updated BetsonRothbarth Schedule



#### Washington **Updated Schedule of Basic Child Support Obligations** Betson-Rothbarth Combined One Two Three Five Six Four Adjusted Net Child Children Children Children Children Children Income 650.00 700.00 750.00 800.00 850.00 900.00 950.00 1000.00 1050.00 1100.00 1150.00 1200.00 1250.00 1300.00 1350.00 1400.00 1450.00 1500.00 1550.00 1600.00 1650.00 1700.00 1750.00 1800.00 1850.00 1900.00 1950.00 2000.00 2050.00 2100.00 2150.00 2200.00 2250.00 2300.00 2350.00 2400.00

Policy Studies Inc. Appendix II - 1



Washington Updated Schedule of Basic Child Support Obligations Betson-Rothbarth							
Combined Adjusted Net Income	One Child	Two Children	Three Children	Four Children	Five Children	Six Children	
0.450.00	0.10	0.50	070	1000	1004	1007	
2450.00	610	850	979	1092	1201	1307	
2500.00 2550.00	621 632	865 880	996 1013	1111 1130	1222 1243	1329	
2600.00	632	895	1013	1149	1243	1352 1375	
2650.00	655	911	1030	1168	1285	1378	
2700.00	667	926	1046	1187	1306	1421	
2750.00	678	920	1003	1207	1328	1445	
2800.00	689	958	1101	1207	1350	1443	
2850.00	701	973	1119	1248	1373	1493	
2900.00	712	989	1137	1268	1395	1518	
2950.00	712	1005	1155	1288	1417	1542	
3000.00	735	1021	1174	1309	1439	1566	
3050.00	746	1037	1192	1329	1462	1590	
3100.00	758	1053	1210	1349	1484	1615	
3150.00	766	1063	1222	1362	1498	1630	
3200.00	771	1069	1227	1368	1505	1637	
3250.00	776	1075	1232	1374	1511	1644	
3300.00	780	1080	1237	1379	1517	1651	
3350.00	785	1086	1242	1385	1524	1658	
3400.00	790	1092	1248	1391	1530	1665	
3450.00	795	1097	1253	1397	1536	1672	
3500.00	800	1103	1258	1403	1543	1679	
3550.00	805	1109	1263	1408	1549	1685	
3600.00	809	1114	1268	1414	1555	1692	
3650.00	814	1120	1273	1420	1562	1699	
3700.00	819	1126	1279	1426	1568	1706	
3750.00	824	1131	1284	1431	1575	1713	
3800.00	830	1138	1290	1439	1583	1722	
3850.00	836	1145	1297	1446	1591	1731	
3900.00	842	1152	1303	1453	1599	1739	
3950.00	848	1159	1310	1461	1607	1748	
4000.00	854	1166	1317	1468	1615	1757	
4050.00	860	1173	1323	1475	1623	1766	
4100.00	866	1180	1330	1483	1631	1775	
4150.00	872	1187	1336	1490	1639	1783	
4200.00	878	1194	1343	1497	1647	1792	
4250.00	884	1200	1350	1505	1655	1801	
4300.00	889	1207	1356	1512	1663	1810	
4350.00	895	1214	1363	1519	1671	1818	
4400.00	901	1221	1369	1527	1679	1827	

Appendix II - 2 Policy Studies Inc.



Washington Updated Schedule of Basic Child Support Obligations Betson-Rothbarth							
Combined Adjusted Net Income	One Child	Two Children	Three Children	Four Children	Five Children	Six Children	
4450.00	007	4000	1070	4504	4007	1020	
4450.00	907 913	1228 1235	1376 1382	1534	1687	1836	
4500.00 4550.00	919	1235	1389	1541 1549	1696 1704	1845 1853	
4600.00	924	1242	1395	1556	1704	1862	
4650.00	924	1253	1400	1562	1711	1869	
4700.00	931	1257	1406	1567	1710	1876	
4750.00	934	1262	1411	1573	1724	1883	
4800.00	937	1266	1416	1579	1737	1890	
4850.00	940	1271	1422	1585	1744	1897	
4900.00	944	1275	1427	1591	1750	1904	
4950.00	947	1280	1433	1597	1757	1912	
5000.00	950	1284	1438	1603	1764	1919	
5050.00	953	1289	1443	1609	1770	1926	
5100.00	957	1293	1449	1615	1777	1933	
5150.00	960	1298	1454	1621	1783	1940	
5200.00	963	1302	1459	1627	1790	1947	
5250.00	966	1307	1465	1633	1796	1954	
5300.00	970	1311	1470	1639	1803	1961	
5350.00	973	1316	1475	1645	1809	1969	
5400.00	976	1320	1481	1651	1816	1976	
5450.00	981	1326	1487	1658	1824	1984	
5500.00	986	1333	1494	1666	1832	1994	
5550.00	991	1339	1501	1674	1841	2003	
5600.00	997	1346	1508	1681	1850	2012	
5650.00	1002	1352	1515	1689	1858	2022	
5700.00	1008	1359	1522	1697	1867	2031	
5750.00	1013	1365	1529	1705	1875	2040	
5800.00	1018	1372	1536	1713	1884	2050	
5850.00	1024	1378	1543	1720	1892	2059	
5900.00	1029	1385	1550	1728	1901	2068	
5950.00	1035	1391	1557	1736	1910	2078	
6000.00	1040	1398	1564	1744	1918	2087	
6050.00	1045	1404	1571	1752	1927	2096	
6100.00	1051	1411	1578	1759	1935	2106	
6150.00	1056	1417	1585	1767	1944	2115	
6200.00	1062	1424	1592	1775	1952	2124	
6250.00	1067	1430	1599	1783	1961	2134	
6300.00	1073	1439	1608	1792	1972	2145	
6350.00	1080	1447	1616	1802	1982	2157	
6400.00	1086	1455	1625	1812	1993	2169	

Policy Studies Inc. Appendix II - 3



#### Washington **Updated Schedule of Basic Child Support Obligations** Betson-Rothbarth Combined One Two Three Four Five Six Adjusted Net Child Children Children Children Children Children Income 6450.00 6500.00 6550.00 6600.00 6650.00 6700.00 6750.00 6800.00 6850.00 6900.00 6950.00 7000.00 7050.00 7100.00 7150.00 7200.00 7250.00 7300.00 7350.00 7400.00 7450.00 7500.00 7550.00 7600.00 7650.00 7700.00 7750.00 7800.00 7850.00 7900.00 7950.00 8000.00 8050.00 8100.00 8150.00 8200.00 8250.00 8300.00 8350.00 8400.00

Appendix II - 4 Policy Studies Inc.



#### Washington **Updated Schedule of Basic Child Support Obligations** Betson-Rothbarth Combined One Two Three Four Five Six Adjusted Net Child Children Children Children Children Children Income 8450.00 8500.00 8550.00 8600.00 8650.00 8700.00 8750.00 8800.00 8850.00 8900.00 8950.00 9000.00 9050.00 9100.00 9150.00 9200.00 9250.00 9300.00 9350.00 9400.00 9450.00 9500.00 9550.00 9600.00 9650.00 9700.00 9750.00 9800.00 9850.00 9900.00 9950.00 10000.00 10050.00 10100.00 10150.00 10200.00 10250.00 10300.00 10350.00 10400.00

Policy Studies Inc. Appendix II - 5



#### Washington **Updated Schedule of Basic Child Support Obligations** Betson-Rothbarth Combined One Two Three Four Five Six Adjusted Net Child Children Children Children Children Children Income 10450.00 10500.00 10550.00 10600.00 10650.00 10700.00 10750.00 10800.00 10850.00 10900.00 10950.00 11000.00 11050.00 11100.00 11150.00 11200.00 11250.00 11300.00 11350.00 11400.00 11450.00 11500.00 11550.00 11600.00 11650.00 11700.00 11750.00 11800.00 11850.00 11900.00 11950.00 12000.00 12050.00 12100.00 12150.00 12200.00 12250.00 12300.00 12350.00 12400.00

Appendix II - 6 Policy Studies Inc.



#### Washington **Updated Schedule of Basic Child Support Obligations** Betson-Rothbarth Combined Two Five Six One Three Four Adjusted Net Child Children Children Children Children Children Income 12450.00 12500.00 12550.00 12600.00 12650.00 12700.00 12750.00 12800.00 12850.00 12900.00 12950.00 13000.00 13050.00 13100.00 13150.00 13200.00 13250.00 13300.00 13350.00 13400.00 13450.00

13500.00

Policy Studies Inc. Appendix II - 7



# Appendix III Updated Betson-Engel Schedule



#### Washington **Updated Schedule of Basic Child Support Obligations Betson-Engel** Combined Four Six One Two Three Five Adjusted Net Child Children Children Children Children Children Income 700.00 750.00 00.008 850.00 900.00 950.00 1000.00 1050.00 1100.00 1150.00 1200.00 1250.00 1300.00 1350.00 1400.00 1450.00 1500.00 1550.00 1600.00 1650.00 1700.00 1750.00 1800.00 1850.00 1900.00 1950.00 2000.00 2050.00 2100.00 2150.00 2200.00 2250.00 2300.00 2350.00 2400.00

Policy Studies Inc. Appendix III - 1



#### Washington **Updated Schedule of Basic Child Support Obligations** Betson-Engel Combined One Two Three Four Five Six Adjusted Net Child Children Children Children Children Children Income 2450.00 2500.00 2550.00 2600.00 2650.00 2700.00 2750.00 2800.00 2850.00 2900.00 2950.00 3000.00 3050.00 3100.00 3150.00 3200.00 3250.00 3300.00 3350.00 3400.00 3450.00 3500.00 3550.00 3600.00 3650.00 3700.00 3750.00 3800.00 3850.00 3900.00 3950.00 4000.00 4050.00 4100.00 4150.00 4200.00 4250.00 4300.00 4350.00

Appendix III - 2 Policy Studies Inc.



#### Washington **Updated Schedule of Basic Child Support Obligations** Betson-Engel Combined One Two Three Four Five Six Adjusted Net Child Children Children Children Children Children Income 4400.00 4450.00 4500.00 4550.00 4600.00 4650.00 4700.00 4750.00 4800.00 4850.00 4900.00 4950.00 5000.00 5050.00 5100.00 5150.00 5200.00 5250.00 5300.00 5350.00 5400.00 5450.00 5500.00 5550.00 5600.00 5650.00 5700.00 5750.00 5800.00 5850.00 5900.00 5950.00 6000.00 6050.00 6100.00 6150.00 6200.00 6250.00 6300.00

Policy Studies Inc. Appendix III - 3



#### Washington **Updated Schedule of Basic Child Support Obligations Betson-Engel** Combined One Two Three Four Five Six Adjusted Net Child Children Children Children Children Children Income 6350.00 6400.00 6450.00 6500.00 6550.00 6600.00 6650.00 6700.00 6750.00 6800.00 6850.00 6900.00 6950.00 7000.00 7050.00 7100.00 7150.00 7200.00 7250.00 7300.00 7350.00 7400.00 7450.00 7500.00 7550.00 7600.00 7650.00 7700.00 7750.00 7800.00 7850.00 7900.00 7950.00 8000.00 8050.00 8100.00 8150.00 8200.00 8250.00

Appendix III - 4 Policy Studies Inc.



#### Washington **Updated Schedule of Basic Child Support Obligations** Betson-Engel Combined One Two Three Four Five Six Adjusted Net Child Children Children Children Children Children Income 8300.00 8350.00 8400.00 8450.00 8500.00 8550.00 8600.00 8650.00 8700.00 8750.00 00.0088 8850.00 8900.00 8950.00 9000.00 9050.00 9100.00 9150.00 9200.00 9250.00 9300.00 9350.00 9400.00 9450.00 9500.00 9550.00 9600.00 9650.00 9700.00 9750.00 9800.00 9850.00 9900.00 9950.00 10000.00 10050.00 10100.00 10150.00

Policy Studies Inc. Appendix III - 5

10200.00



#### Washington **Updated Schedule of Basic Child Support Obligations** Betson-Engel Combined One Two Three Four Five Six Adjusted Net Child Children Children Children Children Children Income 10250.00 10300.00 10350.00 10400.00 10450.00 10500.00 10550.00 10600.00 10650.00 10700.00 10750.00 10800.00 10850.00 10900.00 10950.00 11000.00 11050.00 11100.00 11150.00 11200.00 11250.00 11300.00 11350.00 11400.00 11450.00 11500.00 11550.00 11600.00 11650.00 11700.00 11750.00 11800.00 11850.00 11900.00 11950.00 12000.00 12050.00 12100.00 12150.00

Appendix III - 6 Policy Studies Inc.



#### Washington **Updated Schedule of Basic Child Support Obligations** Betson-Engel Combined One Two Three Four Five Six Adjusted Net Child Children Children Children Children Children Income 12200.00 12250.00 12300.00 12350.00 12400.00 12450.00 12500.00 12550.00 12600.00 12650.00 12700.00 12750.00

12800.00

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13200.00

13250.00

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13350.00

13400.00

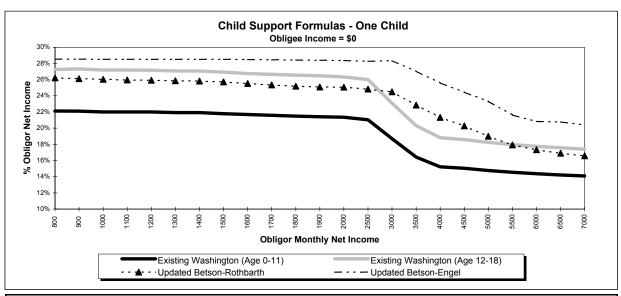
13450.00

13500.00

Policy Studies Inc. Appendix III - 7



# **Appendix IV Graphical Comparisons**

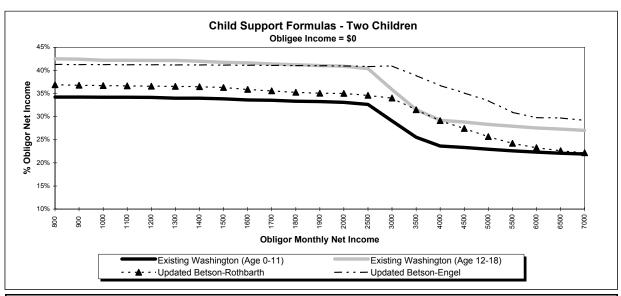


## CHILD SUPPORT FORMULAS - ONE CHILD Obligee Income = \$0

Support Due (\$\$ per month)

% of Obligor's Net Income

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel		Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	177	218	210	228		800	22%	27%	26%	29%
900	199	246	235	257		900	22%	27%	26%	29%
1000	220	272	260	285		1000	22%	27%	26%	29%
1100	242	299	286	314		1100	22%	27%	26%	29%
1200	264	326	311	342		1200	22%	27%	26%	29%
1300	285	352	336	371		1300	22%	27%	26%	29%
1400	307	379	362	399		1400	22%	27%	26%	29%
1500	327	404	386	428		1500	22%	27%	26%	29%
1600	347	428	408	456		1600	22%	27%	26%	28%
1700	367	453	431	484		1700	22%	27%	25%	28%
1800	387	478	453	512		1800	22%	27%	25%	28%
1900	407	503	477	540		1900	21%	26%	25%	28%
2000	427	527	501	568		2000	21%	26%	25%	28%
2500	526	650	621	707		2500	21%	26%	25%	28%
3000	561	693	735	851		3000	19%	23%	25%	28%
3500	575	711	800	947		3500	16%	20%	23%	27%
4000	609	753	854	1024		4000	15%	19%	21%	26%
4500	677	836	913	1101		4500	15%	19%	20%	24%
5000	738	912	950	1167		5000	15%	18%	19%	23%
5500	800	989	986	1189		5500	15%	18%	18%	22%
6000	862	1065	1040	1250		6000	14%	18%	17%	21%
6500	924	1142	1098	1351		6500	14%	18%	17%	21%
7000	986	1218	1161	1429		7000	14%	17%	17%	20%

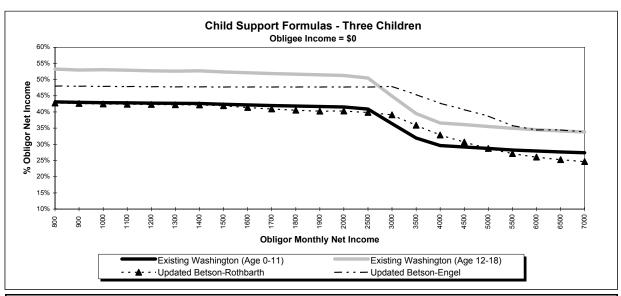


## CHILD SUPPORT FORMULAS - TWO CHILDREN Obligee Income = \$0

Support Due (\$\$ per month)

% of Obligor's Net Income

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Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel		Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	274	340	295	330		800	34%	43%	37%	41%
900	308	382	331	371		900	34%	42%	37%	41%
1000	342	422	367	412		1000	34%	42%	37%	41%
1100	376	464	403	454		1100	34%	42%	37%	41%
1200	410	506	439	495		1200	34%	42%	37%	41%
1300	442	548	475	536		1300	34%	42%	37%	41%
1400	476	588	511	577		1400	34%	42%	36%	41%
1500	508	626	544	618		1500	34%	42%	36%	41%
1600	538	666	575	658		1600	34%	42%	36%	41%
1700	570	704	605	698		1700	34%	41%	36%	41%
1800	600	742	635	739		1800	33%	41%	35%	41%
1900	632	780	666	779		1900	33%	41%	35%	41%
2000	662	818	701	819		2000	33%	41%	35%	41%
2500	816	1010	865	1021		2500	33%	40%	35%	41%
3000	872	1076	1021	1229		3000	29%	36%	34%	41%
3500	894	1104	1103	1362		3500	26%	32%	32%	39%
4000	946	1168	1166	1471		4000	24%	29%	29%	37%
4500	1050	1298	1235	1581		4500	23%	29%	27%	35%
5000	1148	1416	1284	1674		5000	23%	28%	26%	33%
5500	1244	1536	1333	1702		5500	23%	28%	24%	31%
6000	1340	1654	1398	1788		6000	22%	28%	23%	30%
6500	1436	1774	1471	1933		6500	22%	27%	23%	30%
7000	1534	1892	1552	2046		7000	22%	27%	22%	29%

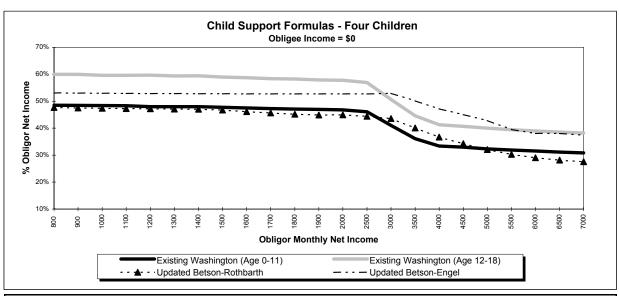


#### CHILD SUPPORT FORMULAS - THREE CHILDREN Obligee Income = \$0

Support Due (\$\$ per month)

% of Obligor's Net Income

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Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel		Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	345	426	342	384		800	43%	53%	43%	48%
900	387	477	384	432		900	43%	53%	43%	48%
1000	429	531	425	479		1000	43%	53%	43%	48%
1100	471	582	467	527		1100	43%	53%	42%	48%
1200	513	633	508	574		1200	43%	53%	42%	48%
1300	555	684	549	621		1300	43%	53%	42%	48%
1400	597	738	591	669		1400	43%	53%	42%	48%
1500	636	786	629	716		1500	42%	52%	42%	48%
1600	675	834	663	764		1600	42%	52%	41%	48%
1700	714	882	696	812		1700	42%	52%	41%	48%
1800	753	930	730	859		1800	42%	52%	41%	48%
1900	792	978	765	907		1900	42%	51%	40%	48%
2000	831	1026	806	954		2000	42%	51%	40%	48%
2500	1023	1263	996	1193		2500	41%	51%	40%	48%
3000	1092	1347	1174	1438		3000	36%	45%	39%	48%
3500	1119	1383	1258	1589		3500	32%	40%	36%	45%
4000	1185	1464	1317	1710		4000	30%	37%	33%	43%
4500	1314	1626	1382	1835		4500	29%	36%	31%	41%
5000	1437	1776	1438	1940		5000	29%	36%	29%	39%
5500	1554	1923	1494	1969		5500	28%	35%	27%	36%
6000	1677	2073	1564	2068		6000	28%	35%	26%	34%
6500	1797	2220	1643	2240		6500	28%	34%	25%	34%
7000	1917	2370	1730	2370		7000	27%	34%	25%	34%

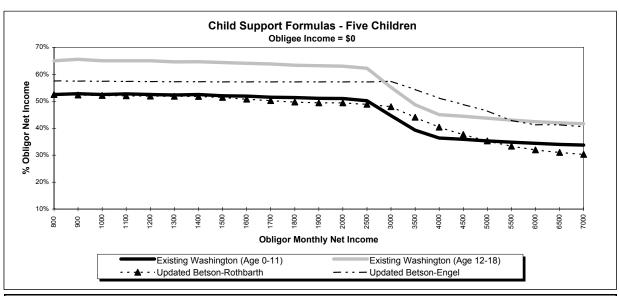


## CHILD SUPPORT FORMULAS - FOUR CHILDREN Obligee Income = \$0

Support Due (\$\$ per month)

% of Obligor's Net Income

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel	Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	388	480	382	425	800	49%	60%	48%	53%
900	436	540	428	477	900	48%	60%	48%	53%
1000	484	596	474	529	1000	48%	60%	47%	53%
1100	532	656	520	582	1100	48%	60%	47%	53%
1200	576	716	566	634	1200	48%	60%	47%	53%
1300	624	772	613	687	1300	48%	59%	47%	53%
1400	672	832	659	739	1400	48%	59%	47%	53%
1500	716	884	701	792	1500	48%	59%	47%	53%
1600	760	940	739	844	1600	48%	59%	46%	53%
1700	804	992	776	897	1700	47%	58%	46%	53%
1800	848	1048	814	949	1800	47%	58%	45%	53%
1900	892	1100	853	1002	1900	47%	58%	45%	53%
2000	936	1156	899	1055	2000	47%	58%	45%	53%
2500	1152	1424	1111	1318	2500	46%	57%	44%	53%
3000	1232	1520	1309	1589	3000	41%	51%	44%	53%
3500	1264	1560	1403	1755	3500	36%	45%	40%	50%
4000	1336	1652	1468	1889	4000	33%	41%	37%	47%
4500	1484	1832	1541	2027	4500	33%	41%	34%	45%
5000	1616	2000	1603	2143	5000	32%	40%	32%	43%
5500	1756	2168	1666	2176	5500	32%	39%	30%	40%
6000	1892	2336	1744	2285	6000	32%	39%	29%	38%
6500	2024	2504	1831	2475	6500	31%	39%	28%	38%
7000	2160	2672	1929	2619	7000	31%	38%	28%	37%

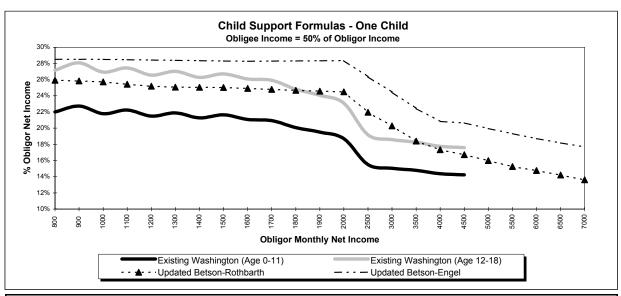


## CHILD SUPPORT FORMULAS - FIVE CHILDREN Obligee Income = \$0

Support Due (\$\$ per month)

% of Obligor's Net Income

		, ,							
Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel	Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	420	520	420	460	800	53%	65%	52%	58%
900	475	590	471	517	900	53%	66%	52%	57%
1000	525	650	521	574	1000	53%	65%	52%	57%
1100	580	715	572	631	1100	53%	65%	52%	57%
1200	630	780	623	688	1200	53%	65%	52%	57%
1300	680	840	674	744	1300	52%	65%	52%	57%
1400	735	905	725	801	1400	53%	65%	52%	57%
1500	780	965	771	858	1500	52%	64%	51%	57%
1600	830	1025	813	915	1600	52%	64%	51%	57%
1700	875	1085	854	972	1700	51%	64%	50%	57%
1800	925	1140	895	1029	1800	51%	63%	50%	57%
1900	970	1200	939	1086	1900	51%	63%	49%	57%
2000	1020	1260	989	1143	2000	51%	63%	49%	57%
2500	1255	1555	1222	1429	2500	50%	62%	49%	57%
3000	1340	1655	1439	1723	3000	45%	55%	48%	57%
3500	1375	1705	1543	1903	3500	39%	49%	44%	54%
4000	1455	1800	1615	2048	4000	36%	45%	40%	51%
4500	1615	2000	1696	2198	4500	36%	44%	38%	49%
5000	1765	2185	1764	2323	5000	35%	44%	35%	46%
5500	1915	2365	1832	2359	5500	35%	43%	33%	43%
6000	2065	2545	1918	2477	6000	34%	42%	32%	41%
6500	2210	2730	2015	2683	6500	34%	42%	31%	41%
7000	2360	2915	2122	2839	7000	34%	42%	30%	41%

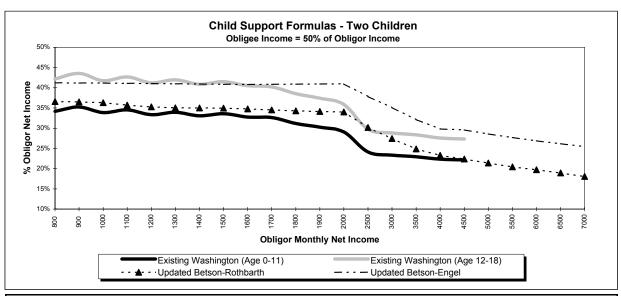


# CHILD SUPPORT FORMULAS - ONE CHILD Obligee Income = 50% of Obligor Income

#### Support Due (\$\$ per month)

% of Obligor's Net Income

					-					
Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel		Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	176	217	207	228		800	22%	27%	26%	29%
900	205	253	233	257		900	23%	28%	26%	29%
1000	218	269	257	285		1000	22%	27%	26%	29%
1100	245	302	280	313		1100	22%	27%	25%	28%
1200	258	319	302	341		1200	22%	27%	25%	28%
1300	285	351	326	369		1300	22%	27%	25%	28%
1400	298	368	351	397		1400	21%	26%	25%	28%
1500	325	401	375	425		1500	22%	27%	25%	28%
1600	337	417	399	453		1600	21%	26%	25%	28%
1700	356	441	422	481		1700	21%	26%	25%	28%
1800	361	447	444	510		1800	20%	25%	25%	28%
1900	371	457	467	539		1900	20%	24%	25%	28%
2000	374	462	490	567		2000	19%	23%	25%	28%
2500	387	479	549	659		2500	15%	19%	22%	26%
3000	451	557	609	734		3000	15%	19%	20%	24%
3500	517	639	644	785		3500	15%	18%	18%	22%
4000	575	710	693	834		4000	14%	18%	17%	21%
4500	641	792	753	930		4500	14%	18%	17%	21%
5000			799	998		5000			16%	20%
5500			839	1063		5500			15%	19%
6000			886	1123		6000			15%	19%
6500			924	1183		6500			14%	18%
7000			953	1238		7000			14%	18%

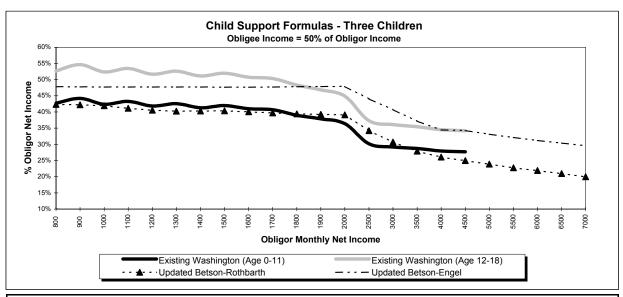


## CHILD SUPPORT FORMULAS - TWO CHILDREN Obligee Income = 50% of Obligor Income

Support Due (\$\$ per month)

% of Obligor's Net Income

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel	Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	273	337	293	330	800	34%	42%	37%	41%
900	317	392	329	371	900	35%	44%	37%	41%
1000	339	417	363	412	1000	34%	42%	36%	41%
1100	380	469	393	452	1100	35%	43%	36%	41%
1200	400	495	423	493	1200	33%	41%	35%	41%
1300	441	545	456	533	1300	34%	42%	35%	41%
1400	463	572	490	573	1400	33%	41%	35%	41%
1500	504	623	525	613	1500	34%	42%	35%	41%
1600	524	648	556	653	1600	33%	41%	35%	41%
1700	555	684	587	694	1700	33%	40%	35%	41%
1800	561	693	617	736	1800	31%	39%	34%	41%
1900	575	711	649	778	1900	30%	37%	34%	41%
2000	581	717	681	820	2000	29%	36%	34%	41%
2500	603	744	754	946	2500	24%	30%	30%	38%
3000	700	865	823	1054	3000	23%	29%	27%	35%
3500	803	992	871	1125	3500	23%	28%	25%	32%
4000	893	1103	932	1192	4000	22%	28%	23%	30%
4500	996	1231	1008	1331	4500	22%	27%	22%	30%
5000			1070	1430	5000			21%	29%
5500			1124	1526	5500			20%	28%
6000			1184	1614	6000			20%	27%
6500			1231	1703	6500			19%	26%
7000			1266	1782	7000			18%	25%

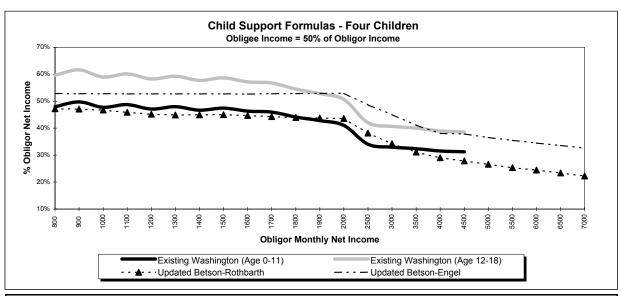


#### CHILD SUPPORT FORMULAS - THREE CHILDREN Obligee Income = 50% of Obligor Income

Support Due (\$\$ per month)

% of Obligor's Net Income

	1			1		1			
Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel	Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	342	422	339	383	800	43%	53%	42%	48%
900	398	492	380	430	900	44%	55%	42%	48%
1000	424	524	419	478	1000	42%	52%	42%	48%
1100	476	588	453	525	1100	43%	53%	41%	48%
1200	502	620	487	573	1200	42%	52%	41%	48%
1300	554	684	524	620	1300	43%	53%	40%	48%
1400	578	716	565	668	1400	41%	51%	40%	48%
1500	630	780	605	716	1500	42%	52%	40%	48%
1600	656	812	641	763	1600	41%	51%	40%	48%
1700	692	856	676	812	1700	41%	50%	40%	48%
1800	702	870	710	861	1800	39%	48%	39%	48%
1900	720	890	746	910	1900	38%	47%	39%	48%
2000	728	898	782	959	2000	36%	45%	39%	48%
2500	754	932	856	1101	2500	30%	37%	34%	44%
3000	876	1084	922	1223	3000	29%	36%	31%	41%
3500	1006	1242	976	1303	3500	29%	35%	28%	37%
4000	1118	1382	1043	1379	4000	28%	35%	26%	34%
4500	1246	1540	1124	1542	4500	28%	34%	25%	34%
5000			1194	1657	5000			24%	33%
5500			1253	1768	5500			23%	32%
6000			1316	1873	6000			22%	31%
6500			1365	1978	6500			21%	30%
7000			1400	2070	7000			20%	30%

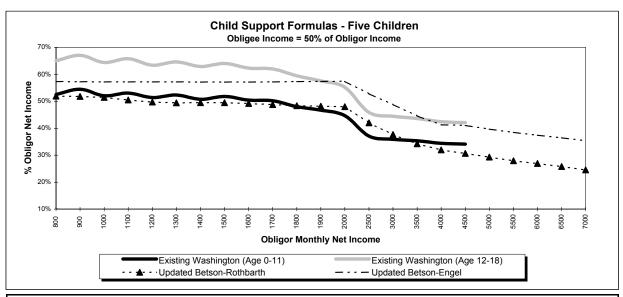


#### CHILD SUPPORT FORMULAS - FOUR CHILDREN Obligee Income = 50% of Obligor Income

Support Due (\$\$ per month)

% of Obligor's Net Income

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel	Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	384	477	378	423	800	48%	60%	47%	53%
900	448	555	424	475	900	50%	62%	47%	53%
1000	477	589	467	528	1000	48%	59%	47%	53%
1100	536	661	505	580	1100	49%	60%	46%	53%
1200	565	699	543	633	1200	47%	58%	45%	53%
1300	624	771	584	686	1300	48%	59%	45%	53%
1400	653	808	629	738	1400	47%	58%	45%	53%
1500	712	880	675	791	1500	47%	59%	45%	53%
1600	741	915	715	843	1600	46%	57%	45%	53%
1700	781	965	753	897	1700	46%	57%	44%	53%
1800	795	981	791	951	1800	44%	55%	44%	53%
1900	813	1003	832	1005	1900	43%	53%	44%	53%
2000	821	1013	872	1060	2000	41%	51%	44%	53%
2500	851	1051	954	1217	2500	34%	42%	38%	49%
3000	989	1221	1028	1352	3000	33%	41%	34%	45%
3500	1133	1400	1089	1440	3500	32%	40%	31%	41%
4000	1261	1557	1163	1524	4000	32%	39%	29%	38%
4500	1405	1736	1253	1704	4500	31%	39%	28%	38%
5000			1331	1831	5000			27%	37%
5500			1397	1953	5500			25%	36%
6000			1467	2070	6000			24%	34%
6500			1522	2186	6500			23%	34%
7000			1561	2288	7000			22%	33%

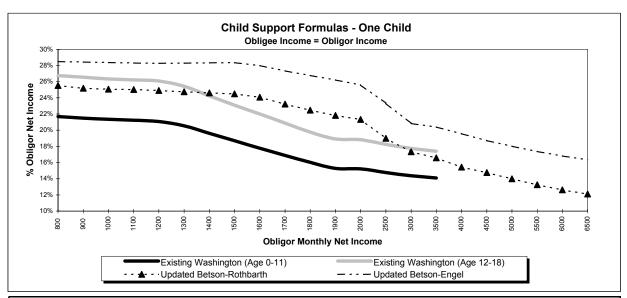


#### CHILD SUPPORT FORMULAS - FIVE CHILDREN Obligee Income = 50% of Obligor Income

Support Due (\$\$ per month)

% of Obligor's Net Income

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel	Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	420	520	415	458	800	53%	65%	52%	57%
900	490	603	466	515	900	54%	67%	52%	57%
1000	520	643	514	572	1000	52%	64%	51%	57%
1100	583	723	556	629	1100	53%	66%	51%	57%
1200	617	760	597	686	1200	51%	63%	50%	57%
1300	680	840	642	743	1300	52%	65%	49%	57%
1400	710	880	692	800	1400	51%	63%	49%	57%
1500	777	960	742	857	1500	52%	64%	49%	57%
1600	807	997	787	914	1600	50%	62%	49%	57%
1700	853	1053	829	972	1700	50%	62%	49%	57%
1800	863	1070	871	1031	1800	48%	59%	48%	57%
1900	887	1093	915	1090	1900	47%	58%	48%	57%
2000	893	1103	960	1149	2000	45%	55%	48%	57%
2500	927	1147	1050	1319	2500	37%	46%	42%	53%
3000	1077	1333	1130	1465	3000	36%	44%	38%	49%
3500	1237	1527	1198	1561	3500	35%	44%	34%	45%
4000	1377	1697	1279	1652	4000	34%	42%	32%	41%
4500	1533	1893	1379	1847	4500	34%	42%	31%	41%
5000			1464	1984	5000			29%	40%
5500			1537	2118	5500			28%	39%
6000			1614	2244	6000			27%	37%
6500			1674	2370	6500			26%	36%
7000			1717	2480	7000			25%	35%



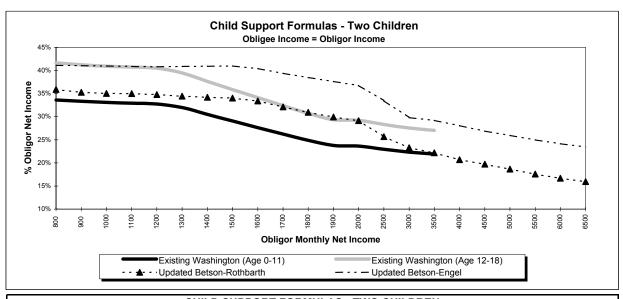
## CHILD SUPPORT FORMULAS - ONE CHILD Obligee Income = Obligor Income

Support Due (\$\$ per month)

% of Obligor's Net Income

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	174	214	204	228
900	194	239	227	256
1000	214	264	251	284
1100	234	289	275	312
1200	253	313	299	339
1300	267	331	322	368
1400	275	340	345	397
1500	281	347	368	425
1600	285	352	385	448
1700	287	355	395	465
1800	289	356	405	482
1900	291	360	415	498
2000	305	377	427	512
2500	369	456	475	583
3000	431	533	520	625
3500	493	609	580	714
4000			618	783
4500			664	842
5000			700	902
5500			729	956
6000			758	1009
6500			788	1063

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	22%	27%	26%	28%
900	22%	27%	25%	28%
1000	21%	26%	25%	28%
1100	21%	26%	25%	28%
1200	21%	26%	25%	28%
1300	21%	25%	25%	28%
1400	20%	24%	25%	28%
1500	19%	23%	25%	28%
1600	18%	22%	24%	28%
1700	17%	21%	23%	27%
1800	16%	20%	22%	27%
1900	15%	19%	22%	26%
2000	15%	19%	21%	26%
2500	15%	18%	19%	23%
3000	14%	18%	17%	21%
3500	14%	17%	17%	20%
4000			15%	20%
4500			15%	19%
5000			14%	18%
5500			13%	17%
6000			13%	17%
6500		-	12%	16%



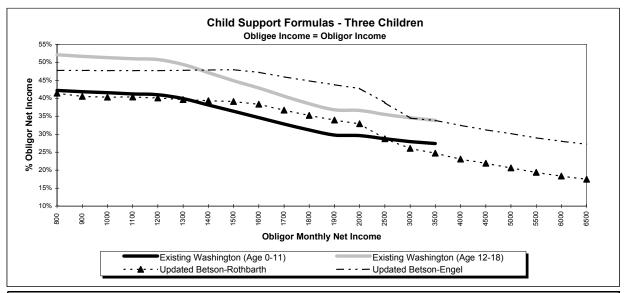
## CHILD SUPPORT FORMULAS - TWO CHILDREN Obligee Income = Obligor Income

Support Due (\$\$ per month)

% of Obligor's Net Income

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	269	333	287	329
900	300	371	317	369
1000	331	409	350	410
1100	362	448	385	450
1200	393	486	417	490
1300	416	513	448	531
1400	427	527	479	573
1500	436	538	510	615
1600	442	546	535	647
1700	446	551	546	670
1800	448	553	557	693
1900	452	558	569	715
2000	473	584	583	735
2500	574	708	642	837
3000	670	827	699	894
3500	767	946	776	1023
4000			828	1122
4500			888	1211
5000			932	1299
5500			967	1375
6000			1002	1450
6500			1037	1526

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	34%	42%	36%	41%
900	33%	41%	35%	41%
1000	33%	41%	35%	41%
1100	33%	41%	35%	41%
1200	33%	41%	35%	41%
1300	32%	39%	34%	41%
1400	31%	38%	34%	41%
1500	29%	36%	34%	41%
1600	28%	34%	33%	40%
1700	26%	32%	32%	39%
1800	25%	31%	31%	38%
1900	24%	29%	30%	38%
2000	24%	29%	29%	37%
2500	23%	28%	26%	33%
3000	22%	28%	23%	30%
3500	22%	27%	22%	29%
4000			21%	28%
4500			20%	27%
5000			19%	26%
5500			18%	25%
6000			17%	24%
6500			16%	23%



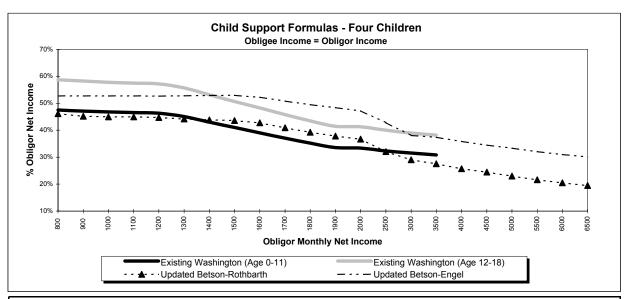
## CHILD SUPPORT FORMULAS - THREE CHILDREN Obligee Income = Obligor Income

Support Due (\$\$ per month)

% of Obligor's Net Income

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	338	417	331	382
900	377	465	365	430
1000	416	513	403	477
1100	453	561	444	525
1200	492	609	481	572
1300	519	642	515	621
1400	534	660	550	670
1500	546	674	587	719
1600	554	686	613	756
1700	558	690	624	782
1800	561	693	634	807
1900	566	699	645	832
2000	593	732	658	855
2500	719	888	719	970
3000	839	1037	782	1034
3500	959	1185	865	1185
4000			924	1300
4500			987	1405
5000			1032	1509
5500			1067	1596
6000			1102	1683
6500			1137	1770

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	42%	52%	41%	48%
900	42%	52%	41%	48%
1000	42%	51%	40%	48%
1100	41%	51%	40%	48%
1200	41%	51%	40%	48%
1300	40%	49%	40%	48%
1400	38%	47%	39%	48%
1500	36%	45%	39%	48%
1600	35%	43%	38%	47%
1700	33%	41%	37%	46%
1800	31%	39%	35%	45%
1900	30%	37%	34%	44%
2000	30%	37%	33%	43%
2500	29%	36%	29%	39%
3000	28%	35%	26%	34%
3500	27%	34%	25%	34%
4000			23%	32%
4500			22%	31%
5000			21%	30%
5500			19%	29%
6000			18%	28%
6500			17%	27%



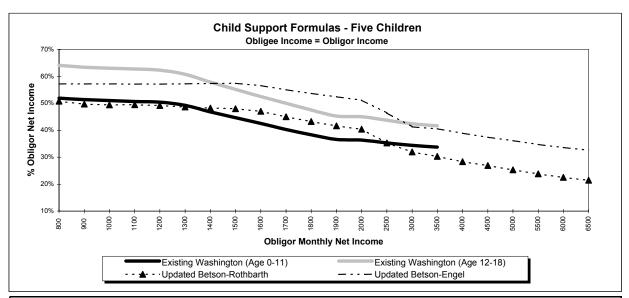
## CHILD SUPPORT FORMULAS - FOUR CHILDREN Obligee Income = Obligor Income

Support Due (\$\$ per month)

% of Obligor's Net Income

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	380	470	369	422
900	424	524	407	475
1000	468	578	449	527
1100	512	632	495	580
1200	556	686	536	632
1300	586	724	574	686
1400	602	744	614	741
1500	616	760	654	795
1600	624	772	684	836
1700	630	778	695	864
1800	634	782	707	892
1900	638	788	719	919
2000	668	826	734	945
2500	808	1000	802	1072
3000	946	1168	872	1143
3500	1080	1336	964	1310
4000			1030	1436
4500			1101	1552
5000			1151	1668
5500			1190	1764
6000			1229	1860
6500			1268	1956

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	48%	59%	46%	53%
900	47%	58%	45%	53%
1000	47%	58%	45%	53%
1100	47%	57%	45%	53%
1200	46%	57%	45%	53%
1300	45%	56%	44%	53%
1400	43%	53%	44%	53%
1500	41%	51%	44%	53%
1600	39%	48%	43%	52%
1700	37%	46%	41%	51%
1800	35%	43%	39%	50%
1900	34%	41%	38%	48%
2000	33%	41%	37%	47%
2500	32%	40%	32%	43%
3000	32%	39%	29%	38%
3500	31%	38%	28%	37%
4000			26%	36%
4500			24%	34%
5000			23%	33%
5500			22%	32%
6000			20%	31%
6500			20%	30%



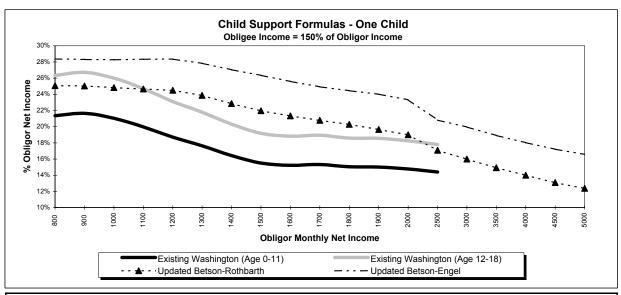
## CHILD SUPPORT FORMULAS - FIVE CHILDREN Obligee Income = Obligor Income

Support Due (\$\$ per month)

% of Obligor's Net Income

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	415	513	406	457
900	463	570	448	515
1000	510	630	494	572
1100	558	690	544	629
1200	605	748	590	685
1300	640	790	632	744
1400	655	810	675	803
1500	670	828	720	861
1600	680	840	752	906
1700	685	850	765	936
1800	690	855	778	967
1900	695	860	791	996
2000	728	900	807	1024
2500	883	1093	882	1162
3000	1033	1273	959	1239
3500	1180	1458	1061	1420
4000			1133	1557
4500			1211	1683
5000			1266	1808
5500			1309	1912
6000			1352	2016
6500			1394	2120

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	52%	64%	51%	57%
900	51%	63%	50%	57%
1000	51%	63%	49%	57%
1100	51%	63%	49%	57%
1200	50%	62%	49%	57%
1300	49%	61%	49%	57%
1400	47%	58%	48%	57%
1500	45%	55%	48%	57%
1600	43%	53%	47%	57%
1700	40%	50%	45%	55%
1800	38%	48%	43%	54%
1900	37%	45%	42%	52%
2000	36%	45%	40%	51%
2500	35%	44%	35%	46%
3000	34%	42%	32%	41%
3500	34%	42%	30%	41%
4000			28%	39%
4500			27%	37%
5000			25%	36%
5500			24%	35%
6000			23%	34%
6500			21%	33%



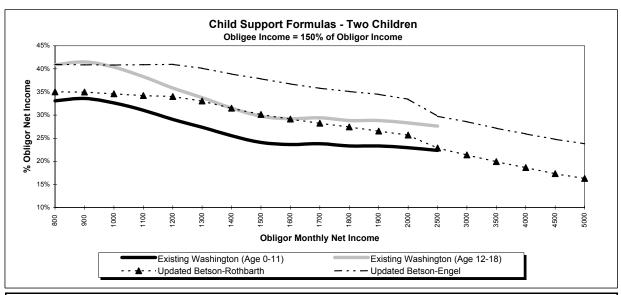
## CHILD SUPPORT FORMULAS - ONE CHILD Obligee Income = 150% of Obligor Income

#### Support Due (\$\$ per month)

% of Obligor's Net Income

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	171	211	201	227
900	195	240	225	255
1000	210	260	248	283
1100	220	272	271	312
1200	224	277	294	340
1300	229	283	310	362
1400	230	284	320	379
1500	232	288	330	396
1600	244	301	341	410
1700	260	322	353	424
1800	271	334	365	440
1900	285	353	374	457
2000	295	365	380	467
2500	360	445	427	520
3000			480	599
3500			522	662
4000			560	722
4500			589	775
5000			618	829

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	21%	26%	25%	28%
900	22%	27%	25%	28%
1000	21%	26%	25%	28%
1100	20%	25%	25%	28%
1200	19%	23%	25%	28%
1300	18%	22%	24%	28%
1400	16%	20%	23%	27%
1500	15%	19%	22%	26%
1600	15%	19%	21%	26%
1700	15%	19%	21%	25%
1800	15%	19%	20%	24%
1900	15%	19%	20%	24%
2000	15%	18%	19%	23%
2500	14%	18%	17%	21%
3000			16%	20%
3500			15%	19%
4000			14%	18%
4500			13%	17%
5000			12%	17%



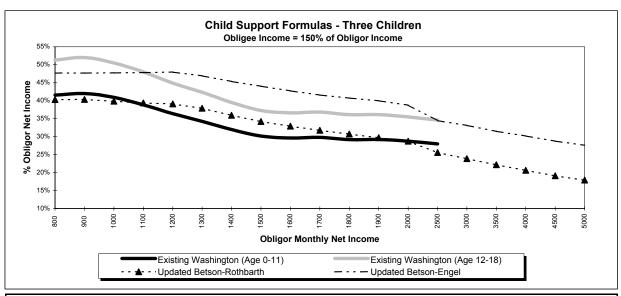
## CHILD SUPPORT FORMULAS - TWO CHILDREN Obligee Income = 150% of Obligor Income

#### Support Due (\$\$ per month)

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	265	327	280	328
900	302	374	315	368
1000	326	404	346	408
1100	342	422	377	450
1200	349	430	408	492
1300	356	439	430	522
1400	358	442	441	545
1500	362	446	452	568
1600	378	467	466	588
1700	405	500	480	609
1800	420	519	494	632
1900	443	548	505	655
2000	459	566	514	669
2500	559	690	572	744
3000			642	858
3500			698	951
4000			746	1039
4500			780	1115
5000			815	1191

#### % of Obligor's Net Income

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	33%	41%	35%	41%
900	34%	42%	35%	41%
1000	33%	40%	35%	41%
1100	31%	38%	34%	41%
1200	29%	36%	34%	41%
1300	27%	34%	33%	40%
1400	26%	32%	32%	39%
1500	24%	30%	30%	38%
1600	24%	29%	29%	37%
1700	24%	29%	28%	36%
1800	23%	29%	27%	35%
1900	23%	29%	27%	34%
2000	23%	28%	26%	33%
2500	22%	28%	23%	30%
3000			21%	29%
3500			20%	27%
4000			19%	26%
4500			17%	25%
5000			16%	24%



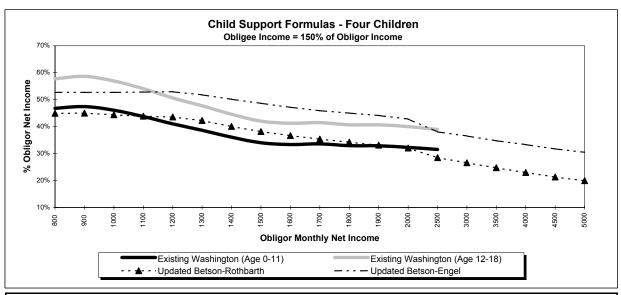
# CHILD SUPPORT FORMULAS - THREE CHILDREN Obligee Income = 150% of Obligor Income

#### Support Due (\$\$ per month)

% of Obligor's Net Income

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	332	410	322	382
900	378	468	363	429
1000	409	505	398	477
1100	427	528	433	526
1200	437	539	469	575
1300	445	551	493	610
1400	448	553	503	635
1500	452	559	514	661
1600	474	586	527	684
1700	506	626	540	708
1800	526	650	553	734
1900	556	686	564	760
2000	575	710	575	776
2500	700	865	640	862
3000			716	994
3500			777	1103
4000			826	1208
4500			861	1294
5000			896	1381

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	42%	51%	40%	48%
900	42%	52%	40%	48%
1000	41%	51%	40%	48%
1100	39%	48%	39%	48%
1200	36%	45%	39%	48%
1300	34%	42%	38%	47%
1400	32%	40%	36%	45%
1500	30%	37%	34%	44%
1600	30%	37%	33%	43%
1700	30%	37%	32%	42%
1800	29%	36%	31%	41%
1900	29%	36%	30%	40%
2000	29%	36%	29%	39%
2500	28%	35%	26%	34%
3000			24%	33%
3500			22%	32%
4000			21%	30%
4500			19%	29%
5000			18%	28%



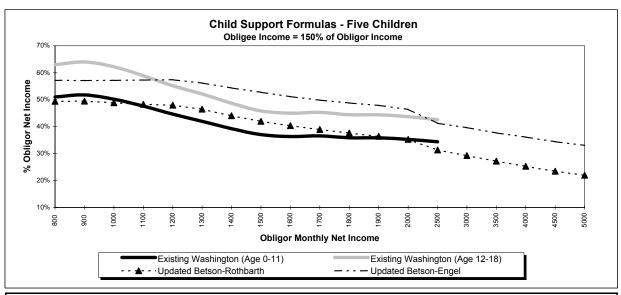
#### CHILD SUPPORT FORMULAS - FOUR CHILDREN Obligee Income = 150% of Obligor Income

#### Support Due (\$\$ per month)

% of Obligor's Net Income

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	374	462	359	422
900	427	528	405	474
1000	461	570	444	527
1100	482	595	483	582
1200	493	608	523	636
1300	502	621	549	674
1400	506	624	561	702
1500	510	630	573	730
1600	534	661	587	756
1700	571	706	602	782
1800	594	733	617	811
1900	626	773	629	840
2000	646	800	641	857
2500	789	974	713	952
3000			799	1098
3500			866	1219
4000			921	1334
4500			960	1430
5000			998	1526

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	47%	58%	45%	53%
900	47%	59%	45%	53%
1000	46%	57%	44%	53%
1100	44%	54%	44%	53%
1200	41%	51%	44%	53%
1300	39%	48%	42%	52%
1400	36%	45%	40%	50%
1500	34%	42%	38%	49%
1600	33%	41%	37%	47%
1700	34%	42%	35%	46%
1800	33%	41%	34%	45%
1900	33%	41%	33%	44%
2000	32%	40%	32%	43%
2500	32%	39%	29%	38%
3000			27%	37%
3500			25%	35%
4000			23%	33%
4500			21%	32%
5000			20%	31%



## CHILD SUPPORT FORMULAS - FIVE CHILDREN Obligee Income = 150% of Obligor Income

#### Support Due (\$\$ per month)

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	408	504	395	457
900	466	576	445	514
1000	502	622	489	572
1100	524	648	531	630
1200	536	662	576	689
1300	546	678	604	731
1400	550	682	617	761
1500	556	688	630	792
1600	582	720	646	819
1700	622	770	662	848
1800	646	800	678	879
1900	682	844	692	911
2000	706	874	705	929
2500	860	1064	784	1032
3000			878	1191
3500			953	1321
4000			1013	1446
4500			1056	1551
5000			1098	1655

#### % of Obligor's Net Income

Obligor's Net Monthly Income	Existing Washington (Age 0-11)	Existing Washington (Age 12-18)	Updated Betson- Rothbarth	Updated Betson- Engel
800	51%	63%	49%	57%
900	52%	64%	49%	57%
1000	50%	62%	49%	57%
1100	48%	59%	48%	57%
1200	45%	55%	48%	57%
1300	42%	52%	46%	56%
1400	39%	49%	44%	54%
1500	37%	46%	42%	53%
1600	36%	45%	40%	51%
1700	37%	45%	39%	50%
1800	36%	44%	38%	49%
1900	36%	44%	36%	48%
2000	35%	44%	35%	46%
2500	34%	43%	31%	41%
3000			29%	40%
3500			27%	38%
4000			25%	36%
4500			23%	34%
5000			22%	33%